

Runway robbery?

Executive Summary

At least two-thirds of Aspen's annual visitors arrive via Aspen Airport. Its flights are roughly 17% commercial, by SkyWest-operated planes for airlines at the public terminal, and 83% private planes—General Aviation or “GA,” using the Fixed Base Operation or “FBO”. The passenger split between airlines and GA is unknown. GA has received sparse policy attention. Yet a momentous choice is about to be quietly made about the long-term business structure of the FBO on which GA depends.

The existing 30-year FBO lease and operating contract will expire in September 2023 and are being re-bid. Strong competition is expected because this concession can be very lucrative. By March 2023, Pitkin County plans to select a corporate bidder to own and run the FBO facilities as now—or perhaps decide instead to retake ownership and either run the FBO itself or hire a contract operator. This strategic choice is complex in detail but relatively simple in principle. It will determine private aviation's future in Aspen for up to 30 years if not permanently: the proposed deal would renew semiautomatically.

Vast sums are at stake. The FBO is currently an unregulated private monopoly. Its jet fuel sells for more than twice the price of regular gasoline sold right across Highway 82. That filling station has many competitors; the FBO has none. Only about 1% of its fuel revenue—a tiny fixed share set at least 14 years ago, and only just raised by 2¢/gallon for 2023—goes to the thinly funded public Airport. The FBO's profits on fuel sales alone may be twice the Airport's entire annual budget. Its profits in each 30-year contract period might total on the order of a billion dollars.

Competing or publicly owned FBOs, both common alternatives, tend to serve the public interest better. Competing FBOs are federally encouraged, have been long planned for Aspen but never tried, and seem to have been quietly dropped from current plans. Pitkin County at first rejected public ownership, but hinted in October 2022 that it might reconsider this proven solution, which helps make jet fuel tens of percent cheaper in Leadville than in Aspen.

The current FBO operator looks commercially successful. In 2021, its parent company, now the #2 chain with more than 100 FBOs nationwide, was sold for \$4.5 billion to the world's largest private equity firm, managing \$459 billion. The Aspen FBO's customer satisfaction and its compliance with certain contractual requirements are opaque. So is the County's oversight of both, complicating informed comparisons with new competitors. And of further concern is that the public has been excluded from the County's FBO policy discussion.

To protect the County's negotiating position, the framing, structure, basis, and content of the County's FBO analysis and deliberations have not been released. They may be at least partly revealed later—only after a new contract has been signed, when public scrutiny and input will be too late. The public can also comment on a new contract only on Second Reading—also too late.

A more open decision process has long been suggested, starting by independently examining the Airport's whole business model in its public-service and aviation-innovation context. This could elicit more, different, and perhaps better ideas to inform what may be the biggest financial commitment in Pitkin County's history, and a vital element of our community's economic future. This essay will help citizens understand what is at stake, what they need to know, and what questions they could ask to help improve the irreversible FBO decisions that our elected officials are about to make.

How visitors get to Aspen

At least two-thirds, perhaps three-quarters, of Aspen's annual visitors fly into Aspen Airport, with higher fractions in the winter¹. Our 573-acre Airport deplanes or enplanes over a half-million² commercial passengers per year (locals plus visitors) plus an unknown number of General Aviation (GA) passengers. It's unknown because the Fixed Base Operator or FBO facility where GA planes are fueled, serviced, and parked doesn't count its passengers³.

Nearly all the [ASE Vision](#) process's discussions and emergent policies were about commercial airplanes—just ~17% of Aspen Airport's landings. The dominant ~83% of Aspen Airport's landings are GA planes. These range from single-engine piston/propeller planes—two-thirds of the national GA fleet—to multi-engine jets, many derived from and looking like commercial airliners but with far fewer seats and more luxurious travel environment inside. Each GA plane typically carries fewer than a tenth as many passengers⁴ as a commercial airline plane⁵.

What fractions of Aspen aviation's noise, air pollution, and greenhouse-gas emissions come from GA rather than commercial flights? No one knows that either, so policy has again focused almost entirely on the commercial ~17% of aviation operations. However, quite a few of the most objectionable planes using Aspen Airport are large, and often older, GA planes. Few or no policies are proposed for GA planes because they have innumerable owners and operators, not just one, and the County currently has no authority to regulate GA.

Then again, the County has no authority to choose or regulate commercial planes either, but tells⁶ its Staff to “negotiate” commercial-plane choices with “airlines” that don't even own them (SkyWest provides and crews all of them). A hint that this is an unpromising approach is the airlines' recent terse rejection of a clause the County added to their lease renewals, requiring their best efforts to improve reliable and on-time performance. The County signed it anyway⁷.

Most visitors arrive on commercial flights that link Aspen directly with about 9–10 US airports, including the five busiest hubs in the nation—and, impressively, in the world in 2021 by certain passenger metrics⁸. An unknown number of Aspen visitors arrive by surface—some from flights diverted from Aspen, or from Vail Airport, half of whose passengers at certain times are actually headed for Aspen. Neither Airport nor Aspen Skiing Company nor Aspen Chamber and Resort Association have solid data on how many visitors arrive by what means. Occasional speculations that more people fly in by GA than commercial service are unsupported and implausible. But combining airlines with GA, Aspen Airport is the biggest entry point, bringing about twice if not three times the annual visitors arriving by all other modes combined.

Visitors arriving by GA—on corporate and private planes, plus the increasingly popular and competitive air-taxi, charter, and sub-charter services—are likely to be richer and more influential than the larger number arriving at the public terminal by commercial flights. Private-plane users can afford the convenience of being able to fly on their own schedule into all US public airports—which are ten times as numerous as airports with commercial service—and of avoiding long lines, crowded lounges, airport security checks, and perhaps some delayed flights. By 2020, these elite customers' demands had made Aspen the 22nd-busiest US GA airport—just behind Chicago, Seattle, and Boston⁹—and Colorado's third-busiest airport.

This essay will help citizens understand important FBO issues: the competition for a new FBO contract, how the Airport and the FBO make money, alternative business models, and more. If you wonder why kerosene jet fuel at the FBO on (say) 20 December 2022 was priced at \$9.59 a gallon while regular gasoline across the street sold for \$4.09, read on.

The current once-in-30-years chance to reconsider who runs the FBO and how

The Aspen FBO controls, and provides aeronautical services to, all private planes at Aspen Airport. It functions as an aviation gas station, tank farm, and attended parking lot. It should also provide contractual services and expected amenities: hangars (some heated), tie-downs, airplane mechanics, cleaners, de-icing, crew and rental cars, pilot lounge and showers, café and grill, WiFi, Notary Public, concierge.

Aspen Airport's FBO was developed on the Airport's General Aviation land under a 30-year Lease Agreement and Redevelopment Agreement with Pitkin County. Those contracts expire on 30 September 2023, when all FBO facilities revert to the County if there's no new lease. On 9 August 2022, the County issued a Request for Proposal (RFP) soliciting proposals for a new contract. Proposals must be submitted by 17 January 2023 and chosen by 6 March 2023—or perhaps not, as we'll see. Winning would be “intensely lucrative” for the operator¹⁰, despite paying the County rents, utility fees, plus a guaranteed minimum adjusted from an initial \$2.25 million each year¹¹, and paying for substantial construction and upkeep. Bidders must have ten years' continuous FBO experience, thus excluding many smaller firms. Bidders proposing alternative business structures or operating models may risk disqualification as unresponsive.

Aspen's General Aviation emerged in 1946 with a private gravel airstrip. Walter Paepcke, the legendary co-creator of modern Aspen, founded Aspen Airways in 1952 as the flight department of the Aspen Institute. In 1957, the County turned the airstrip into a public airport, then commercial passenger service emerged in the 1970s¹². After a series of operators including Dallas-based McDavid Brothers, around 1982–83 FBO operation was put out to bid under a “Blue Ribbon Committee” of operators and citizens. They recommended the respected Combs Gates group, but under murky circumstances, with alleged corruption unsuccessfully litigated, the Commissioners awarded a 5-year contract, later extended, to a local group with no experience of FBO operation. It later morphed into Aspen Base Operations led by Cliff Runge. In 2006, they sold the lease to Trajen FBO Network, which eight months later was sold to Atlantic Aviation, the current operator. In 2021, Atlantic was bought for \$4.5 billion by KKR, the world's largest private equity firm. Also in 2021, Ross Aviation merged into Atlantic. This reinforced Atlantic's position as the nation's #2 FBO-chain operator, with more than 100 FBOs nationwide, surpassed only by Signature. These vast networks in principle offer uniform quality and standards, loyalty programs, and bulk-bought, often discounted fuel. Their economies of scale, and the market power that flows from their size and network synergies, have long driven consolidation of previously independent FBOs, just as in many other US industries with weak enforcement of antitrust laws.

Atlantic's existing FBO terminal on the east side of the Airport is getting old and ripe for replacement. Pitkin County's RFP contemplates that the capital cost would be amortized over 20 years, said to justify a contract duration of up to 30 years; that's negotiable, but the County

“intends to award a lease for the maximum stated duration.¹³” As we’ll see, most FBO service contracts *without* major capital investments are for five years or fewer.

The proposed new contract would make the lease transferable to a qualified successor subject to County consent, which “shall not be unreasonably withheld.” Strikingly, the proposed new contract also appears to be *renewable indefinitely* unless the County objects, which it may not do “unreasonably.” Yet it gives the County no discretion to terminate the contract unless the operator defaults. A deep-pocketed FBO owner, like the present one, could probably turn such a contract into a perpetual entitlement. Why might an operator wish to do that?

What’s it worth to run the FBO?

Thanks to major growth in private aviation, many old FBO contracts with low but initially fair lease fees are now worth far more. Thus in 2012, when Aspen’s FBO paid \$167,000 in annual rent, an airport management consultant found it was worth at least \$3 million in annual rent if marked to market, and predicted further appreciation up to 2022¹⁴. That “conservative” 2012 estimate rested partly on a comparable: a replacement FBO bid (not an additional FBO, for which there was no space or plan) at San Diego International Airport, pledging \$39 million toward a new terminal and \$315 million in rent over 37 years. San Diego had more air traffic than Aspen, but in gallons of fuel sold to private planes—“for any FBO operation coast to coast, . . . the most important statistic,” said Pitkin County’s consultant—*Aspen outsold San Diego*, and they charged virtually identical prices. FBO revenues from other services also “tend to be higher at higher-end airports” like Aspen’s. The consultant told our Board of County Commissioners in 2012 that the resulting profit potential explained the seven bids for San Diego’s FBO renewal contract—won by the incumbent, which bid *a 478% hike on its own rent*.

Atlantic Aviation’s CEO disputed this comparison in 2012 and (just as the firm does a decade later) denied there was market demand for a competing Aspen FBO, because Aspen had enough consistent FBO business to support only one. Of Atlantic’s then 65 FBOs nationwide, he said, Aspen is the most seasonal, so its 40 trained staff couldn’t be sustained through low season¹⁵. Fig. 1 confirms this familiar seasonality. It applies to both GA and commercial operations, and to a great many Aspen-area businesses whose revenues depend largely on, well, visitors. Aspen has “low season” when planes bring fewer visitors, and fewer visitors spend less money in town.

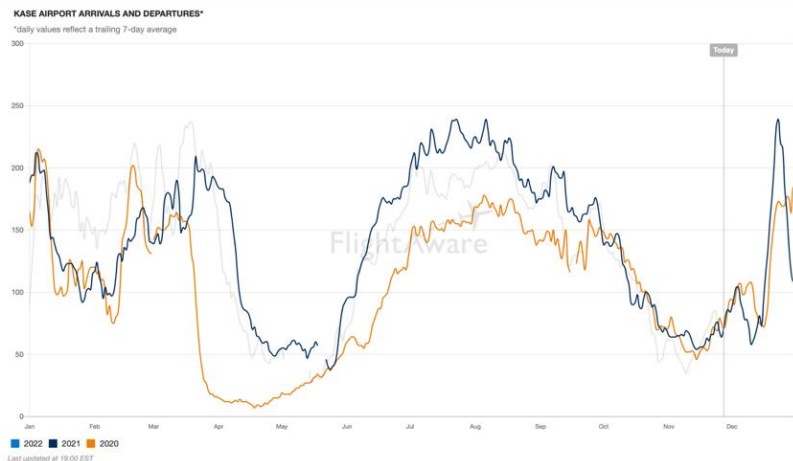


Fig. 1. Total operations (arrivals plus departures) at Aspen Airport in calendar years 2000 (brown), 2021 (black), and 2022 to about Thanksgiving (gray) as the 2022 total neared 2019 levels. Graphic courtesy of FlightAware (flightaware.com), at <https://flightaware.com/live/airport/KASE>.

However, as the National Academies just concluded¹⁶, seasonal demand can be offset by smart business strategies. One method is commonplace at the Aspen FBO as in many other Aspen-area and other resort-town businesses:

Some GA FBOs with high seasonal variations in traffic will maintain a core staff and hire seasonal workers without fringe benefits (e.g., health insurance or personal time off) for peak periods to control operating costs.

Some line service workers might also be shareable with the commercial side of the airport. They typically have these important responsibilities, and may have wider skills too:

- Customer service;
- Traffic control and aircraft parking on the ramp;
- Safety of the aircraft while on the airfield;
- Fueling and handling of expensive aircraft;
- Testing fuel quality and inventory levels;
- Maintaining equipment in clean and functional condition; and
- Airfield maintenance, snow removal, and possibly deicing (if a publicly owned FBO).

The distinction between specialized FBO lineworkers and versatile, redeployable employees dwindles if the airport's public owner chooses to run the FBO itself¹⁷, perhaps enabling some staff to be shared even more widely. The method of public takeover is prescribed by law:

Some airport sponsors at the end of a lease agreement with a private FBO have elected to exercise a "proprietary exclusive right" to be the sole provider of FBO services or specific individual services such as fueling or deicing. The FAA recognizes this right with the condition that the exercise of this right requires the airport sponsor to use its own employees and resources to provide aeronautical services. The sponsor is not permitted to contract for these services with third parties.

This is not an unusual arrangement. Four years ago, the United States had 5,092 public-use airports, 42% of them publicly owned. Of publicly owned US airports' FBOs, 57% were privately operated, but *1,562 airports owned their own FBOs—three-fourths run by municipal or county governments*¹⁸. *A public owner has full access to its own operating data and can set prices and policies* (if reasonable and not unjustly discriminatory). This can directly achieve the same public-service, fair-price, and equity goals as competition between multiple private FBOs, as we'll discuss. Why is that important, and what happens if we have an unfettered monopoly?

Monopoly vs. competition

Privately run FBOs may adopt uncompetitive prices and practices, so federal policy strongly favors competition from multiple FBOs at each airport. Of the 5,092 public-use US airports mentioned above, 63.5% had at least one FBO, and 299 (9% of airports with FBOs) had two or more, with a total of 799 FBOs serving those 299 airports. *Atlantic Aviation in 2014 directly competed with other FBO operators "at approximately half its locations"*¹⁹. How this competition affected profitability was not disclosed, but can be partly inferred by examining the firm's FBO pricing of Jet A aviation fuel. Private FBOs don't publish their financial details, but a Securities and Exchange Commission filing reveals that in 2014, *fuel sales provided 64% of Atlantic Aviation's total corporate gross profits*²⁰.

FBOs are mainly gas stations for airplanes. Of US aviation fuel, 99% is Jet A—the kerosene that runs jet engines—and less than 1% is Avgas, like the lightly leaded gasoline for piston-engined planes. Like other refined petroleum products, Jet A prices vary widely across time and space.

The Aspen Airport FBO's 2022 price of Jet A rose to the vicinity of \$10 per gallon— matching (in nominal terms) the maximum 2019 price at *Alaskan* FBOs²¹, where fuel transportation costs to most FBOs are significantly higher than in the lower 48. An online comparison in late November 2022 showed an Aspen FBO Jet A price of \$10.49/gal—slightly above the nearby and similarly price-insensitive Vail or Rifle, 8% above Montrose or Gunnison, 27% above Denver, and 40% above *Leadville*—America's highest-altitude public-use airport at 9,934', small, but County-owned, County-run, and a low-fuel-price leader. The Aspen FBO, in contrast, is on leased County land but is privately owned, privately run, and notably pricey.

No wonder, as then Aspen Airport director Jim Elwood said a decade ago, that “many FBO operators have expressed a great deal of interest in operating a second private facility” here. “These are companies that are very up on FBO business models and they know what they are talking about before they go into something”²². Aspen's draft airport master plan said airport managers “receive 10 to 20 inquiries per year regarding the desire to lease or build corporate hangar facilities at the airport.” And the FAA “tends to see the FBO situation the same way Elwood does. ‘If there isn't market viability, typically we don't see demand,’ [the] manager of the FAA's Northwest Mountain Region...told the Pitkin County commissioners in May [2012].”

He further advised that if an FBO operator expresses interest in opening a competing FBO, “FAA regulations require that a local airport accommodate the request—if the airport has accepted prior federal funding, if there is space available at the airport, and if it makes financial sense.” The then-current airport master plan, reported *Aspen Journalism*, “indicates that there is enough room to build a second FBO, on land that was purchased with FAA funds,” just down-valley of the operations center building and its adjacent hangar, and accessible from Owl Creek Road²³. FAA's conditions were thus met. Indeed, says the former Aspen FBO manager who negotiated the current 1993 lease²⁴, “unless there is a new lease, or substantial...amendments to the existing lease, the language in the [current] lease specifically calls for a second FBO and addresses all the issues surrounding that intention. Fuel farms were designated for the second FBO....”

Our County Commissioners were told in 2012 by the same FAA manager that they “do have the ability to define the scope and scale of a new FBO, as well as to issue a detailed request for proposals that can narrowly define the facility. But under FAA regulations they don't have the ability to simply say ‘no’ to a valid proposal in order to remain a one-FBO airport.” If they did this based on supposedly poor economics, they'd have to prove it to the FAA's satisfaction. He even said the FAA thinks Aspen “may be able to handle” a *third* FBO, and has seen three “at facilities that have significantly less fuel flowage” than Aspen had in 2012, when it sold far less fuel than today. Consistent with FAA's favoring competition, in August 2012 the Commissioners sent to the Planning & Zoning Commission a draft master plan including *two* FBOs. Competitive FBOs remained in the plan at mid-2013²⁵ and even in July²⁶ and August²⁷ 2014, and were in the December 2014 *ASE Future Air Service Planning Study*²⁸. But then political clouds rolled in.

What happened to a competing second FBO?

In those discussions around 2012, County consultants, in the plain (though not undisputed) words of original FBO co-owner and manager Cliff Runge²⁹, “misrepresented the east-side [FBO] concept as being unable to meet county minimum standards (not true), while simultaneously presenting a Gulfstream 650 Club hangar development on the west side as actually meeting those standards (again not true). It was obvious that the general-aviation area of the airport was being sold to the very few, very rich users of the facility.” Runge added: “Our airport administration and its paid consultants have had untold hours to present their expansionary vision to the commissioners and even went so far as to hire an excellent public relations firm, with [\$0.5 million of] public funds, to help ‘sell’ the plan to the community. And since the airport administration acted as a filter and final [arbiter]...of information presented to the commissioners”—a pattern we’ll later see echoed in the past few years—“many community voices were never heard.”

Unexpectedly, the FAA didn’t approve the two-FBO 2012 Airport Layout Plan because its west-side taxiway would continue, as now, to violate FAA’s 400’ standard for separation from the runway, required for planes with up to 118’ wingspan rather than the exceptional current 95’ limit³⁰. The proposed separation would be only 340’. Yet, reported *Aspen Journalism*, “The FAA would, however, continue to tolerate the existing modification [of the FAA standard for separation] for the east side taxiway, even if the county wanted to go ahead with a new terminal.” This guidance was based on the assumption that the CRJ700 planes then and now providing nearly all commercial jet service into Aspen will be over half “retired by 2021,” so the airport should be redesigned for bigger planes and there’s no reason to wait. As we’ll learn later in this series, that assumption proved false, aviation is in unprecedented flux, and now there’s every reason to wait.

In 2012, Commissioners approving the Airport Master Plan were reminded of their legal obligation to allow a competing FBO, and outside counsel advised “The county is under scrutiny because there is only one FBO at the airport today.³¹” In 2014, an official Community Questions page³² agreed the Airport “must accommodate” a second FBO on the west side because under FAA grant assurances, “We are required to provide an equal opportunity for other fixed base operators to conduct business at the airport if there is interest and available space on the airport to do so.” Aspen Airport Director Jim Elwood told the Commissioners “that a proposal submitted by Landmark Aviation in 2013 has been reviewed and now ‘trips a decision’ that will eventually allow other parties to bid on a contract for a second FBO in Aspen”³³. Andrew Doremus—a longtime pilot who developed the Rifle Jet Center, ultimately sold to Atlantic Aviation—said he and colleagues were interested in running a second Aspen FBO, mainly to serve smaller and local planes. But first the FAA needed to approve a new Airport Layout Plan. That decision, then expected in 2014–15, has now slipped at least to 2023 and probably later. Even in 2021, Aspen Airport’s current Director reportedly told former FBO manager Runge that the FAA had insisted on two FBOs. Yet a year later, *only one FBO was being planned*, reportedly due perhaps to unspecified “safety” concerns unmentioned by the FAA.

Sure enough, the Request for Proposal³⁴ released by our Board of County Commissioners on 9 August 2022 *was for a single FBO*. The east-side GA land previously planned to receive a second FBO—now occupied instead by Atlantic Aviation’s expanding activities—would be used only for based and overflow aircraft parking, without hosting competing facilities or services.

The current plan (conditional on local and FAA approvals not yet received based on plans not yet formulated) is to expand the airport to allow 118' wingspans and thus meet FAA's 400' separation rule without modification. The second FBO planned in 2012 would then not be built, and the winning bidder would extend the existing monopoly. To understand this core issue, we must now delve into the Airport's and FBO's financial models and the County's decision process.

How do the Airport and the FBO make money?

Aspen Airport is operated as a standalone independent enterprise fund, separated from other County funds and activities, and able to issue its own revenue bonds. Its running costs are paid solely from Airport Fund revenues. Capital investments are funded by Airport Fund revenues, revenues from customer and passenger facility charges, and grants (federal, state, and other). Major projects are typically 90% funded by FAA grants, under agreements that require the Airport to hold landing fees to levels that cover total operating costs on a breakeven level and, in the standard FAA boilerplate language, can "maintain the airport's financial capacity and flexibility for future capital improvement projects." This leaves considerable wiggle room: the Airport, for example, lost a lot of money during the pandemic, and is now planning huge renewals and expansions. It appears that the current rate-and-fee-setting model is not properly covering depreciation, so whenever facilities need renewal or replacement, they require a large new round of grants and private financing, though they don't directly burden local tax revenues.

Aspen Airport's 2023 budget attributes airfield costs³⁵ 60% to airlines and 40% to GA despite the ~83/17 recent operations ratio and 2020's 38/62 ratio of weight-based landing fees. FAA rules require airport rates, fees, and charges for aeronautical services to be fair and reasonable, not unjustly discriminatory, applied only for airport or related uses rather than to general revenues, and set to make the airport "as financially self-sustaining as possible," but are not otherwise constrained. Airport charges for *non*-aeronautical uses other than terminal rentals may be above-cost and may reflect a market rate³⁶. It appears that FBO charges for fuel are treated that way too.

To contribute to its operating costs, Aspen Airport earns landing fees³⁷, space rents³⁸, and three kinds of FBO fees³⁹. In 2014–15, Aspen's landing fees were reportedly the highest among Colorado mountain resorts.⁴⁰ Today the Airport still struggles to cover operational costs, as summarized by its surplus-and-loss statement for 2020⁴¹; it then booked a surplus in 2021 but is budgeted to lose money again in 2022 and hopes to improve in 2023.

A \$6.32 million overall loss even in pre-pandemic 2019 reinforces the impression that revenue services are often priced too low to cover costs reliably, let alone to build up a stronger capital fund for future reinvestment as existing assets need routine replacement. It's encouraging that the 2023 Airport Fund Balance budget has risen to \$8.3 million⁴², but costs are rising too, with \$0.5-billion Airport reinvestments now proposed—two orders of magnitude above the Fund Balance.

In contrast, the FBO doesn't suffer the County Airport Fund's concerning financial position, because it charges its private-plane customers many kinds of fees that it sets in its unfettered discretion and whose revenues it doesn't report. It's hard for a citizen even to obtain a schedule of fees. Inquiries are referred to Atlantic Aviation's website⁴³, which doesn't mention certain fees reported by an independent aviation website⁴⁴. That site shows that as of late November

2022, a medium jet like a Hawker 400XP incurred these fees, which various FBOs structure differently:

	<i>Aspen</i>	<i>Rifle</i>	<i>Gunnison</i>	<i>Grand Junction</i>
Ramp fee	\$0	\$80	\$0	\$200
Handling fee*	\$315	\$315	\$250	\$0
Security fee	\$25	\$0	\$0	\$0
Overnight fee	\$160	\$150	\$40	\$0
<i>Total fees with a 1-night stay</i>	<i>\$500</i>	<i>\$545</i>	<i>\$290</i>	<i>\$200</i>
Atlantic Aviation’s website, queried on the same date, instead states these fees:				
Facility fee	\$490	\$460		
Security fee	\$45	\$35		
Aspen Habitat Fee	\$0–25	—		

*Waived with a ≥ 150 -gallon fuel purchase in Aspen, Rifle, or Gunnison (or ≥ 200 gallons at Grand Junction, which charges \$0); or according to the website of Atlantic Aviation, which runs the Aspen and Rifle FBOs, ≥ 250 gallons. The Gunnison FBO is run by Avflight, and Grand Junction’s by West Star Aviation. Aspen Habitat Fee is meant to contribute to employees’ housing costs.

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. (Some pilots also mention a \$20 departure fee, but that may simply be the Airport’s light-plane landing fee, which is charged on departure.)

Two consultant reports⁴⁵ show that in 2019, the County received \$231 of revenue from the average itinerant GA operation (again, that’s a takeoff *or* a landing), nearly 80% of it from landing fees—by far the highest landing-fee share among the 21 airports compared. Aspen Airport’s revenue per itinerant GA operation is more than 19 other examples shown, and lower than all but two⁴⁶. The highest *fuel* revenue from itinerant GAs, \$12.5 million (48% of total GA revenue) at Naples, Florida, was \$180 per operation—*more than five times* Aspen’s \$33 revenue from the fuel flowage fee discussed below. This may reflect their relative fuel prices.

The Aspen FBO’s own revenues are unknown, but are probably much larger than those of its host Aspen Airport. That’s because the FBO, as the chart above shows, earns a hefty profit on planes that buy lots of fuel or must pay a big handling fee. What might that fuel-sale profit be?

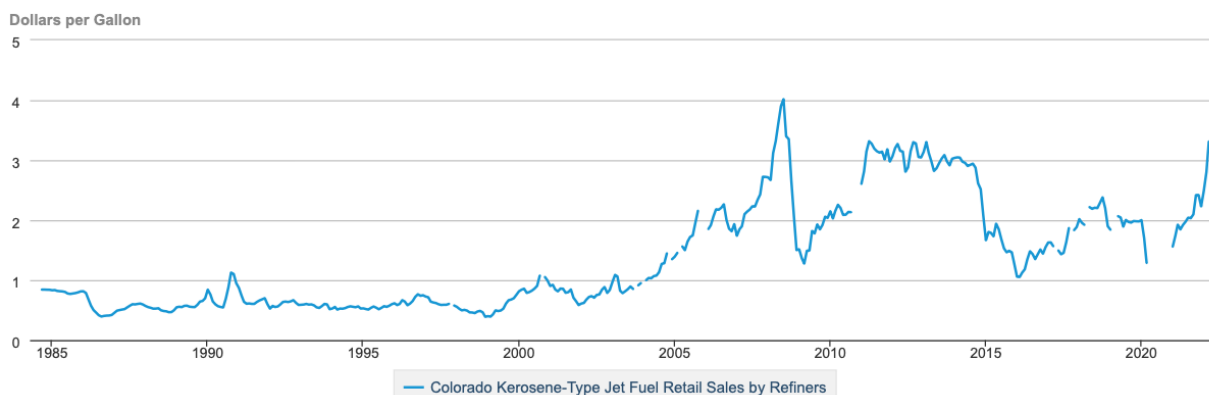
Fuel pricing

Most importantly, and typically accounting for most of their profit, *private FBOs can sell fuel at whatever price the market will bear*. Aspen’s FBO, as any astute business would do, seems to take full advantage of the wealth, hence the low price sensitivity, of much of its clientele. This profit opportunity has emerged over the past two decades. Fig. 2 shows why by graphing Colorado jet fuel’s wholesale price⁴⁷, which rose again in 2022 as air travel rebounded and Putin’s War in Ukraine roiled oil markets. We’ll explore below the details of that 2022 disruption.

Fig. 2. Colorado jet-fuel wholesale prices show two decades of stability, then two decades of rising price and volatility. The price rise, though, is roughly accounted for by 118% monetary inflation⁴⁸ between 1985 and 2021 (more today). Average US Jet A wholesale prices hit an all-time low below \$1/gal in May 2020. Retail prices are of course higher, and their averages

conceal especially wide variation. In late 2022⁴⁹, the US range of FBOs' Jet A retail price was \$3.99–14.00, averaging \$6.49; in Colorado's region, \$4.78–10.13, averaging \$6.84.

Colorado Kerosene-Type Jet Fuel Retail Sales by Refiners



Aspen's FBO, like any filling station, must pay to truck its fuel from the refiner or dealer (often in places like Denver or Grand Junction), pay its own staff and other business expenses, and pay income and fuel taxes⁵⁰ collected in the retail fuel price. An expert familiar with ASE's FBO estimates that trucking in its fuel might cost around 12¢/gallon and not over 20¢/gal; assume 20¢.

Fuel flowage fee

The FBO provides fuel to both GA and commercial airplanes. The FBO keeps all its fuel-sales revenues except tax passthroughs and a fuel flowage fee paid to the County for each gallon delivered to the fuel farm. That fee's venerable⁵¹ 12¢/gal rate is about 1.1% of the FBO's late-2022 Jet A retail price. It had not risen since at least 2008⁵², when 12¢ was equivalent to 16¢ today, until a last-minute revision in November 2022 raised it to 14¢/gal in 2023⁵³, offsetting less than half the monetary inflation.

A 2013 Pitkin County Staff comparison said FBO fuel flowage fees ranged from 5¢/gal for Montrose and 8¢ for Eagle/Vail to 40¢ for Telluride (and \$1.05 for Nantucket, Massachusetts)⁵⁴. The FY2023 Pitkin County budget package included no comparison⁵⁵, and we haven't found an analysis of how well the fuel flowage fee covers the current costs it's supposed to. It should reflect monetary inflation and be cost-based⁵⁶; most airport costs seem to be trending up. Yet typically the fuel flowage fee is about the only revenue line item that Airport Staff and the County Commissioners haven't proposed to escalate in their annual review (until 16 November 2022). Any discussion is generally cursory, but each penny of fee the County doesn't collect raises the FBO's profit—in 2021, by \$93,600. The increase to 14¢/gal just voted for 2023 thus shifts about \$0.2 million per year from FBO to County income.

The current FBO RFP (Request for Proposal) may illuminate the potential of a newly proposed Potential Gross Receipts Fee, which would augment the fixed fuel flowage fee with, in effect, something like profit-sharing of fuel revenues⁵⁷. This could be the sort of usefully proposed clause the County described⁵⁸ as ensuring that "Airport realized revenue correlates, and is calibrated to, the FBO's revenue"—an important alignment of interests if ultimately realized.

How does the FBO's fuel-price behavior compare with that of competitive vendors?

The petroleum fuels business is very complex, but a simple comparison, soundly interpreted, can still reveal important insights. Let's walk step-by-step through a graph showing some US fuel-price movements in the turbulent year 2022 (not quite to year-end):

Fig. 3. When Putin's War disrupted oil markets, the benchmark US crude-oil price rose 60%, then reverted by Thanksgiving. Wholesale gasoline and jet-fuel prices, the dotted and dashed lines, nearly doubled but then reverted. At the retail level, Denver gasoline prices, the red line, rose in near-lockstep with wholesale prices, then promptly fell back to 15% below their starting point. The Aspen FBO's retail jet-fuel price, the gold line (and another data source's monthly-average gold dots), rose by about the same amount as gasoline, but then remained high for another half-year after wholesale prices had peaked. A key reason gasoline prices ratcheted down fully and quickly and while jet-fuel prices stayed aloft could be that each gasoline filling station competes with many others nearby, while the Airport's FBO has no local competitors.

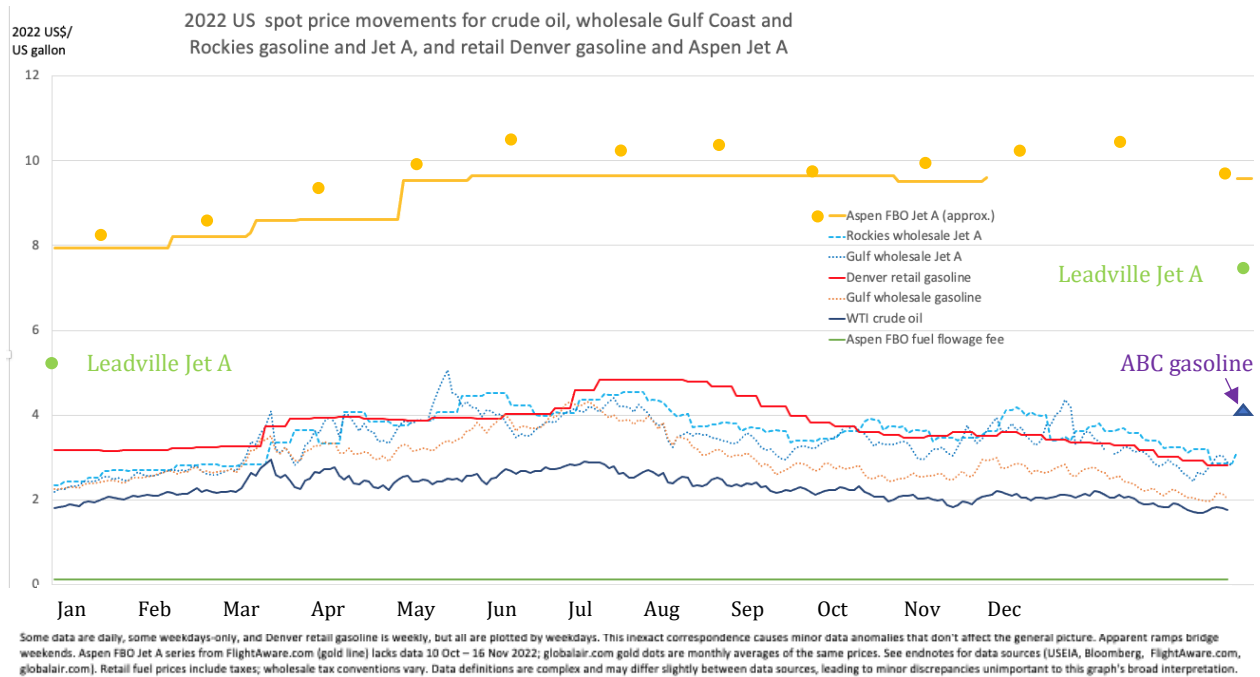


Fig. 3's story begins with the thick black line, crude oil⁵⁹, which refiners compete to turn into products from asphalt to watch oil. Crude oil is refiners' highest cost, so big price rises are passed through in their products. The three dotted or dashed lines in Fig. 3 show three wholesale prices: gasoline on the refinery-rich Gulf Coast⁶⁰ (dotted orange), and jet fuel there⁶¹ (dotted blue) and in the Rocky Mountain region⁶² (dashed aqua). Cheap shipping between those regions, usually by pipeline, makes their Jet A wholesale prices similar. Gasoline is higher-grade than jet fuel, but more refiners make far more gasoline⁶³, so these fuels' wholesale prices are similar, with gasoline often lower by anywhere from a few dimes to about a dollar per gallon.

How were 2022's oil-market disruptions passed along in the value chain? Costlier crude oil⁶⁴ in the spring and summer drove up wholesale prices, so retail prices rose too. Their linkage was

pretty tight for the red curve—Denver retail gasoline⁶⁵. It duly rose, stayed up for about a month due to system lags and market pressure from summer driving, then fell back—ultimately to 15% below its starting point. Now contrast the gold curve⁶⁶ or the monthly-average gold dots⁶⁷—the approximate⁶⁸ retail price of jet fuel (Jet A) sold by the Aspen FBO. It rose by about the same amount as retail gasoline, roughly matching the spring rise in wholesale prices. But then the FBO’s retail price rose further in the autumn and stayed quite high for the rest of the year.

Gasoline’s wholesale-to-retail markup briefly rose with summer driving, then returned to a narrow band. So why was the Denver retail gasoline price so promptly and more-than-fully cost-responsive, while Aspen jet fuel ratcheted much higher and stayed high, even late in 2022 as retail and wholesale gasoline prices and wholesale jet-fuel prices kept falling?

Could this be because gasoline filling stations have many vigorous competitors that track and adjust prices daily, while the FBO’s airplane filling station has no competitor⁶⁹? And could this help explain why on (say) 20 December 2022, when we went to look, *the competitive private filling station right across Highway 82 from the FBO charged \$4.089 for a gallon of regular gasoline, while a gallon of Jet A kerosene at the FBO fetched \$9.59? That’s 135% or \$5.50/gal more, for a fuel with similar wholesale cost and virtually identical transportation needs*⁷⁰. This comparison is graphed, plus two for the Lake County-owned-and-operated Leadville FBO⁷¹.

Retail price minus total costs equals profit. Aspen’s FBO keeps it all except the 12¢/gallon fuel flowage fee graphed as the green line at the bottom of Fig. 3. As of 20 December 2022⁷², for each dollar Pitkin County got from that fee, the FBO received \$79.

Can any inferences be drawn about the profitability of the FBO’s fuel sales?

Fig. 3 shows that in round numbers, wholesale fuel costs the FBO on the order of \$3/gal⁷³, plus its transportation cost—the ~20¢ or less mentioned above. How much markup must be added to cover all the FBO’s capital and operating costs to store and sell that fuel? That’s not published, but it is at the well-run, publicly owned and operated Naples, Florida airport’s FBO, where it’s \$2.40/gal⁷⁴. Round that up generously for Aspen’s higher costs and it’s probably still well under \$4/gal, leaving the FBO operator most or all of a ~\$3–4/gal profit from a \$9.59 retail price. With due allowance for regional differences and local circumstances, the markup between the dashed blue and the gold lines in Fig. 3 seems to far exceed any normal competitive-market profit margin. Interestingly, when we visited the Aspen FBO on 20 December 2022, the Jet A price wasn’t posted at the counter, on the wall, or online. The counter agent didn’t know the price, and had to look it up on an internal website we couldn’t see. He suggested consulting pilots’ customary fuel-price websites, but didn’t know any of their URLs. Such behavior makes sense if you have no competition. But many gasoline filling stations post their prices out front on huge signs.

Aspen’s FBO looks like a printing press for money—good work if you can get it. And according to a longtime former FBO manager, an informed negotiator could even extract from a large FBO chain a higher price for the Aspen concession than its bare economics justify, because the chain can “touch” nearly all those rich clients here, helping to recruit them into its own network. Conversely, since all the big business jets are professionally crewed, and the pilots want to minimize interactions between their \$80-million plane and a ~\$20-an-hour line person, those contacts tend

to be pilot-supervised, reducing the operator's risk. A contractor-run but County-owned FBO could thus work exceptionally well here, and be far better for aviators than current and proposed arrangements.

It's not a convincing answer that jet-fuel prices are nearly as high in Vail and Rifle⁷⁵. They too have a monopoly fuel provider that rationally approaches the regional price Aspen sets. But though comparisons aren't exact because fuel-transportation and other costs differ, it's revealing that Jet A retail prices per gallon in recent months were typically around \$2 to nearly \$4 below Aspen's at such Colorado FBOs as Chaffee County in Salida, Meeker, Blake Field, and Central Colorado Regional. ~~Denver Centennial~~ Airport's four competing private FBOs, 2326 flat miles from the Commerce City refinery that provides a third of DEN's fuel, averaged about \$2.3/gallon cheaper than Aspen. But Denver's Jet A is often costlier than Leadville's—108 mountainous miles from that refinery, but with a publicly owned and run FBO, purchased by Lake County from its private operator. Leadville's typical Jet A price, often tens of percent cheaper than Aspen's⁷⁶, illustrates the importance of public vs. private FBO ownership.

To be sure, Aspen's FBO, like all local businesses, is burdened by the need to recruit and retain staff despite the very high local cost of living. This longstanding issue was the FBO's biggest challenge even in 1984–2006⁷⁷, and in 2022 it caused Atlantic Aviation to start paying its ~45–60 regular staff a \$1,000-a-month housing allowance⁷⁸. High staff costs also encourage Atlantic, like many local businesses, to rely heavily on contractors for services like airplane maintenance, and on manyfold more part-time and seasonal than full-time employees, increasing flexibility while reducing total benefits. The FBO also bears the entire risk of building and operating its required facilities, though in 2021 the County canceled three contractually required projects.

Then again, the FBO is a for-profit enterprise, obliged only to maintain certain services and standards to the County's satisfaction. The operator is unburdened by price regulation, financial transparency, any public evaluation of customer satisfaction (the County does none), or any FAA mandate to charge only breakeven or fair-and-reasonable prices as regulated public utilities and other monopolies must do. Industry observers think the Aspen FBO is exceptionally profitable.

The obvious question for County Commissioners and citizens is thus whether a public-use airport, with major capital investments typically 90% funded by federal taxpayers, and serving not just visitors but also local aviators, should continue to provide aviation fuel solely through an opaque private monopoly with this sort of pricing behavior, for the benefit mainly of the world's top private-equity firm, which manages nearly a half-trillion dollars⁷⁹.

Private vs. public FBO

Seeing Aspen Airport often falling short of its breakeven revenue goal while the FBO makes undisclosed but apparently impressive profits makes one wonder if the County, rather than entering a similar arrangement for another 30 years, should run the FBO itself, or perhaps own a public one run by a private contractor. The County could cut costs by exploiting its tax-free financing, its built-in-and-scaled support services (procurement, accounting, etc.), its lack of private investors demanding high returns, and perhaps its ability to shift certain staff flexibly between FBO, other airport duties, and even some other County needs.

Three basic business models are available. As the National Academies explain⁸⁰, an airport sponsor like Pitkin County “can deliver FBO services with traditional third-party leases or by engaging a contract manager [as in the Academies’ Appleton, Wisconsin case-study], or the airport can self-operate the FBO.” Over the past two years, citizens have repeatedly proposed an independently led public process to explore Aspen Airport’s business model and to discuss with independent experts various ways to structure the FBO’s functions, staffing, and finances, all based on solid, open analysis of the Airport’s fundamentals and alternative business models. On 19 April 2022, Amory Lovins [wrote](#) the Board of County Commissioners and Airport Advisory Board⁸¹:

The reportedly imminent issuance of an RFP for competing the expiring FBO operating contract is cart-before-horse, and urgently needs policy, process, and data transparency. The County should already have launched a searching public discussion, led by an independent expert on airport finances and operations, of the Aspen Airport’s business model, revenue flows, and earnings prospects. That information could then illuminate whether the County should own the FBO and conduct or contract out its operation, rather than continuing to allow a private operator to keep most of the profits that could support airport improvements and County operations⁸².

There are strong indications that the County now earns only a small fraction of what Aspen Airport operations would conventionally yield under businesslike management at market prices and values. The public, and apparently the Commissioners, lack any insight into that opportunity, or even transparent financial accounting of FBO operations. The current FBO operator sets its own...fees⁸³..., and the operator is incentivized for its own profits, not the County’s. County staff’s implicit strategy seems to be to avoid public discussion and quietly perpetuate existing cozy arrangements, to the County’s great disadvantage.

At first this suggestion was rebuffed, notably in County Staff’s 23 May 2022 [response](#)⁸⁴ (with emphasis added):

The County has evaluated the various options for the operation of the new FBO. Although FBO businesses can be lucrative endeavors, there is also a significant amount of cost, risk and industry expertise required to operate an FBO safely and profitably. The existing FBO facilities are at or near the end of their useful life. This requires the complete redevelopment of the facility, requiring a significant capital outlay. An evaluation of the capital costs, plus on-going maintenance, coupled with the capital leverage for a new Airline Passenger Terminal, would significantly stress the Airport’s financial capacity. Even if the County contracted portions of the operation of the facility to a third party (likely required since FBO operations are specialty), the County would still need to finance the required facility redevelopment and hire County employees to operate this aspect of operations. This is just not a viable financial option and increased [the] challenges in today’s market to recruit and retain the numerous added employees. *The BoCC has directed staff to produce an RFP to seek an FBO and no longer consider a County operated FBO. Staff is carrying out that direction.*

In addition, there is a significant amount of risk associated with the management and ownership of an FBO. The financial leverage, coupled with the significant liability, outweighs any potential gain. The forthcoming RFP solicitation along with the subsequent new FBO contract, will address revenue issues experienced during the past 30-years and provide clauses to ensure Airport realized revenue correlates, and is calibrated to, the FBO’s revenue.

Three months later, pressed for details of the underlying analysis, the Airport Director elaborated⁸⁵ (with emphasis added):

The County evaluated three operational/ownership scenarios for the FBO:

1. County Owned and Operated
2. County Owned and Operated by an [*sic*] Private Manager
3. Privately Owned and Operated FBO (Method in the current RFP).

Due to the number of pending capital projects at the Airport (Terminal, Airfield Pavement, Ground Transportation Reconfiguration, Airfield Electrification, etc.), it would be very difficult for the airport to also fund the significant infrastructure costs associated with an FBO facility. The debt service would be significant and may impact other capital projects that only the airport sponsor (or sponsor related federal grants) could fund. In addition, unless the County used its own employees to operate the FBO, a second FBO provider could be allowed to operate on the Airport which would make the prospect of funding of capital improvements [incomplete sentence.] (This would go to the issue of an airport being granted (by the FAA) “permissible exclusive rights” and “impermissible exclusive rights”, as outlined in FAA Order 5190.6B). Such competition could make achieving revenue levels allowing the County to fund not only FBO capital infrastructure, but any other capital investments, difficult. The cost-benefit of this model of operations was not advantageous. There is also a significant level of liability associated with owning and operating an FBO of the size needed at ASE.

Due to the capital cost being fully the responsibility of the County, while still having to provide a significant amount of revenue to a management company, the second option was also not advantageous. This model works well at airports where the capital infrastructure is minimal (compared to that at ASE) or where the infrastructure does not require repositioning or is aged.

The third option was chosen since it had the advantage of allowing the County to fund the various capital projects needed, but also ensured that an entity well versed in FBO operations was interfacing with the GA community. A private FBO operator also provides a layer of insulation between the FBO clients and the Airport/County staff and the BOCC. This is the model used at most large airports or those with extensive GA jet traffic. In addition, by having a privately owned and operated FBO, the liability, which can be extensive, is passed to the private operator.

A model looking at allocating various capital and operating costs between the County and an operator was discussed, but this type of agreement becomes complicated very quickly. By having a model where a private FBO owns and operates the facility, the County can focus on ensuring that certain operating measures are contractually enforced more effectively.

Basically, the County evaluated trying to find the best option for funding critical airport capital projects while also acquiring maximum revenue to help fund other capital projects, in addition to contractual enforceability of desired community values.

Yet two weeks later, the County’s position that “The third option was chosen” seemed to soften⁸⁶, implying a tacit reversal of the 23 May 2022 statement that “The BoCC had directed staff to...no longer consider a County operated FBO” (emphasis added):

It is paramount to correct...[Amory Lovins’s] assumption that the Board of County Commissioners (BoCC) has made a decision regarding the method of redevelopment and/or operation of the future FBO facility. The BoCC, has in fact, not made any decision regarding the development/operational model for a future FBO, nor has it made any determination as to the length of a contract, should a third party mode be chosen. Simply put, the BoCC has merely directed the solicitation of a Request for Proposals (RFP) as a means to gauge overall interest, potential revenue opportunities, and conceivable solutions to operation and redevelopment. Without performing this solicitation, the BoCC would not be able to make a deeply informed decision as to the ultimate development/operational model for the future FBO facility. *The final decision as to the development and operational model, including contract length (should the process ultimately result in a contract) will be made via an open, public process.*

Without public announcement, Staff confirmed this apparent U-turn to the Airport Advisory Board on 20 October 2022⁸⁷. Bidders may now assume the RFP’s page-one statement that “The County intends to award an FBO Lease and Use Agreement...to conduct FBO services and operations at the Airport to the most qualified Proposer...[but] reserves the right to reject any and all proposals...” is not just boilerplate. A new box on the County’s process flowchart revealed that the County *may reject all bids* (now said to have been solicited only to test the market) and decide to own the FBO itself and run it with County or contractor staff (as Staff said; the box says “County Owned and Operated FBO”). This signal of potential openness to a new model may dismay some bidders who hear about it, but should be encouraged, and evidence about its opportunities vigorously developed.

The National Academies’ case-studies include an instructive and successful transition from a private FBO (Atlantic Aviation) to a public-sponsor-owned FBO at Fort Wayne, Indiana⁸⁸. Examples nearer home include Leadville/Lake County, mentioned earlier, and in 2018, the Jackson Hole, Wyoming, airport run by former ASE Director Jim Elwood. Its independent Board unanimously approved an early FBO buyout as more advantageous than a second FBO. The Board reportedly expected a payback within five years and \$25–30+ million in annual revenue in the following five years, up from the initial \$16 million (similar to Aspen’s). Public ownership and operation would let the airport set fuel prices and “mark the end of pricing that some pilots say is indicative of a monopoly and created an oppressive environment for light aircraft.”⁸⁹

Viability of a publicly operated FBO

Pitkin County’s financial capacity to take on FBO responsibilities would of course be enhanced if later and better airside design and aviation innovations, explored later in this series, reduced Airport investment needs, plausibly by a nine-figure sum. The straw budget for Airport modernization⁹⁰ shows projected investments 3.5 times larger for runway and taxiway construction—at least most of which may be avoidable—than for FBO construction.

County Staff’s arguments against public FBO ownership or operation, as quoted above, are also not persuasive. For example, consider if these three claims hold water:

1. *The County would need to hire too many staff.* The FBO employees are already there and presumably already housed (to the extent any Aspen workers are truly housed). They or their replacements would be paid from revenues, just as now, but without the private-operator middleman. It could cost less for the County to hire such staff, especially if they could be more flexibly deployed, than to pay a separate profit-making and tax-paying firm to hire them to perform the same FBO functions.
2. *The County would run undue risk of a private FBO’s coming in to compete.* It would be a bold private operator who’d expect to beat a public FBO’s prices and customer expectations. Regardless, *any* private operator that got the Aspen contract, whether under a lease or as an operator-for-hire, would face the same risk of a new private competitor, and should price that risk into its bid to the County, which would therefore have to pay for that risk anyway. Or if the County chose to run the FBO itself, it could abate competitive risk by exercising its Proprietary *Exclusive* Right as many others have done.
3. *A private operator would absolve the County of litigation risk.* That’s probably unrealistic. Claimants always target the deepest pockets, and often find ways to tap them no matter what the contracts say. However, the County may well enjoy governmental immunity from tort claims. Conversely, a private operator faced with a huge liability could well default, dumping it back onto the Airport and taxpayers if governmental immunity were pierced. And if there *is* a substantial risk, why would underwriters price its

coverage cheaper for a private operator (which would then price liability insurance into its bid) than for the County, which would thus either bear or pay for the risk either way?

Such apparent flaws in the County’s analysis suggest the benefits of wider public scrutiny. If informed by responses to the RFP, a genuinely open process could not just test and refine the analysis but also reveal unexpected benefits. There’s plenty of money on the table: with over nine million gallons of annual fuel flow (9.36 million in 2021), and each gallon marked up by apparently several dollars (perhaps more), it would seem reasonable to estimate that *the FBO may be earning very roughly \$30+ million in annual net fuel profit (plus other profits)* that could instead benefit Aspen Airport as owner/operator, or reduce fuel costs for GA customers, or both. *That’s comparable to twice the Airport’s entire current operating budget.*

Public ownership and direction would enable the County to see all operational and financial data, set policies and prices for General Aviation (subject to FAA rules as now), and integrate its policy approach between commercial airlines and the roughly sixfold-larger General Aviation operations. This could immensely advance all the County’s declared goals for a better airport with lower impacts, costs, and risks.

Alternatively, the County could build and own the FBO’s physical infrastructure just as it now does for the rest of the Airport, but hire an experienced FBO operator to run it—rather than, as now, ceding policy and pricing control of both infrastructure and operations for decades. The operator could then get a shorter operating lease (conventionally 5–10 years with renewal option⁹¹, or 3–5 years with limited renewal for pure operating leases of existing facilities⁹²), because the operator wouldn’t need decades of assured operation to recover its own investment. This could raise accountability and responsiveness to County officials, customers, and the public.

Expectations, quality, assessment, and transparency of FBO operator performance

Whatever the ownership and control structure, public ownership without transparency to support vigilant public scrutiny does not automatically ensure better outcomes. That is, the assurance quoted above that with private FBO ownership and operation, “the County can focus on ensuring that certain operating measures are contractually enforced more effectively” is not self-executing. Current contractual enforcement does not appear to inspire the greatest confidence.

An expert familiar with the FBO contracts’ history says the County is now empowered in many respects to audit and control the operator, but that these powers molder unused. For example, he says the County has some ability to control or influence FBO pricing; has the right and obligation to require a building maintenance fund (never established, and not in the proposed new contract); has the right to audit all operational accounts; can even call back the lease for the whole north half of the GA area, from the tower through the existing patio shelters (also apparently dropped from the proposed new contract); and more. It does not appear that any of these existing contractual powers has ever been used⁹³. The existing contracts also seem to contain no Competitive Fuel Pricing Standard or periodic rent-rate reappraisals as good practice requires⁹⁴, though the latter is in the proposed new contract. And as noted earlier, the contract would renew semiautomatically and potentially indefinitely, but would be hard for the County to terminate. This slant seems neither necessary nor desirable to protect the public interest.

Moreover, current compliance with Pitkin County Minimum Standards for Aeronautical Activity⁹⁵ is said to be interpreted loosely, leading to some critics' perception of inconsistent or inadequate performance. Required onsite aircraft maintenance was outsourced to a Grand Junction firm whose mechanics were not Aspen-based but sporadically visited the Aspen satellite facility. They focused on fixing transient aircraft that became unserviceable in Aspen, but scarcely offered scheduled annual maintenance for based aircraft. They were reportedly hard to reach (by voicemail message to an 800 number) and harder to book. More recently they apparently resigned, though some on-call services may still be available. Larger GA operators have apparently been procuring their own maintenance services for the past few winters, with some more-complex repairs even requiring company mechanics to come from Colorado Springs, Denver, even Salt Lake City. On 15 December 2022, the Airport Advisory Board was told that SkyWest will provide full-time aircraft maintenance technicians for its own commercial aircraft during December through April this winter, but that's for the airlines, not for GA planes. Presumably, private GA pilots needing maintenance can seek help from Rifle, where maintenance has reportedly become a flourishing service and added hangars.

The County's Minimum Standards and FAA rules require the FBO to serve GA customers with full-time onsite maintenance, even if provided by a third party—as the proposed new contract would allow for *all* Required Services⁹⁶. Pitkin County Code §10.40.010 requires that all Required Services “shall be...conducted and provided...at all times by a full-service FBO.” Required Service C(3) under §10-40-020 is “Minor Aircraft airframe and engine Maintenance, Preventive Maintenance, re-Building and alterations; incidental parts and accessories.” Is this vital service actually being provided at a level that meets customers' and FAA's expectations, not just the County's notably flexible interpretation?

And as for non-maintenance services, the FBO's required flight school and ground school are operating—the latter via Aspen's public school system—but at only a modest level, albeit with private and FBO support and some FBO referrals. The required charter service was outsourced to a Denver firm, with just one Aspen-based plane.

Another sore point is GA airplane parking. Some local pilots wishing to rent space to park their small planes report being told no covered space is available, even though they can see open spots occupied by nothing, by FBO wheeled equipment, or by larger planes arriving subsequently. Some are offered to go on a waiting list for a \$300/month spot. They gather that the FBO prefers to rent space to more-profitable planes that are larger and itinerant.

If some pilots' accounts are correct, the operator seems more focused on lucrative fuel sales than on fulfilling all its obligations as the “full-service FBO” the County wanted. Any enforcement efforts seem invisible; the Airport only reports receiving no “Formal Complaints” about lack or pricing of services⁹⁷. The current operator is nonetheless widely considered a (if not the) leading contender to renew its contract.

Fundamentally, FBO performance is not transparent. Gripes about service availability and quality are in the realm of anecdote, rumor, and social media, not in the open where they can be fairly assessed. *The public simply has no visibility into the operator's performance or the County's oversight.* Neither appears to receive independent assessment—not even of FBO customer satis-

faction, which pilots' online comments suggest is decidedly mixed, but the County doesn't measure⁹⁸. We did find one survey online: a 2020 *Aviation International News* survey of 2013–20 pilot satisfaction scored Aspen's FBO second-lowest among 25 FBOs in seven Rocky Mountain States⁹⁹.

In short, there is seemingly no watchdog, so it never barks. A balanced and rigorous FBO management process would long ago have taken scrupulous care not to leave any impression that existing arrangements are cozy, casual, and unaccountable, nor to let the current RFP seem to some critics to read as if the incumbent wrote it. If one end of the spectrum of FBO performance assessment important to sound management and the current bidding process is a thorough, arm's-length, impeccably independent, and published expert audit, the County's approach appears to be somewhere around the other end. We can't conjecture how the Selection Committee can compare the incumbent's actual but seemingly unmeasured performance with rivals' asserted but hypothetical performance.

Decision process

The 2022 conversations quoted on pp. 14–15 above about how the County should handle the 2023 FBO contract expiration omitted some important history. It turned out that our County Commissioners had *already* preempted those questions via a closed-door process performed mainly in 2021, launched in 2020, and begun in time to hire its consultant in 2019¹⁰⁰. How did they structure that inquiry into the business models of the FBO and Airport? What information did they have? Whom did they ask? What options did they consider before designing probably the biggest contract solicitation in the County's history? What review or advice did they solicit from experts independent of their own Staff and consultants? Perhaps they were wonderfully advised, and in their wisdom they're now following an admirable process to reach the best possible decisions. But the public cannot tell, and the stakes are high.

Pitkin County's Commissioners are thoughtful, serious, hardworking, honest, accessible, and reasonably accountable. They deal capably and continuously with innumerable complex issues. However, they are not technical, not aviators, not advised by an independent and aviation-savvy Airport Board of Directors (because there isn't one), and therefore obliged to rely heavily on consultants selected and instructed by their Staff¹⁰¹. County Staff are equally untrained in aviation (other than the Airport Director and his new Deputy, both chosen by a process Staff defined and steered), may work in the background, and are not accountable to the public. Such complex structural reliance on Staff, however capable, can create an appearance of a tacitly agenda-driven process that the County's unusual reticence about its FBO deliberations does nothing to dispel.

The County's rationale¹⁰² for secrecy is that

Since the information contained in the analysis may be considered proprietary to FBO operations and/or could provide an advantage to a respondent in the RFP process and/or contracting with the County, it is desirable to keep this information internal at this time. Once the County has completed the selection and subsequent contracting process, we could supply most or all of the analysis. While we want to make every attempt to be as transparent as possible, we are concerned that the external release of the analysis could adversely impact the ability of the County to negotiate a contract providing the best revenue and operational value to the County.

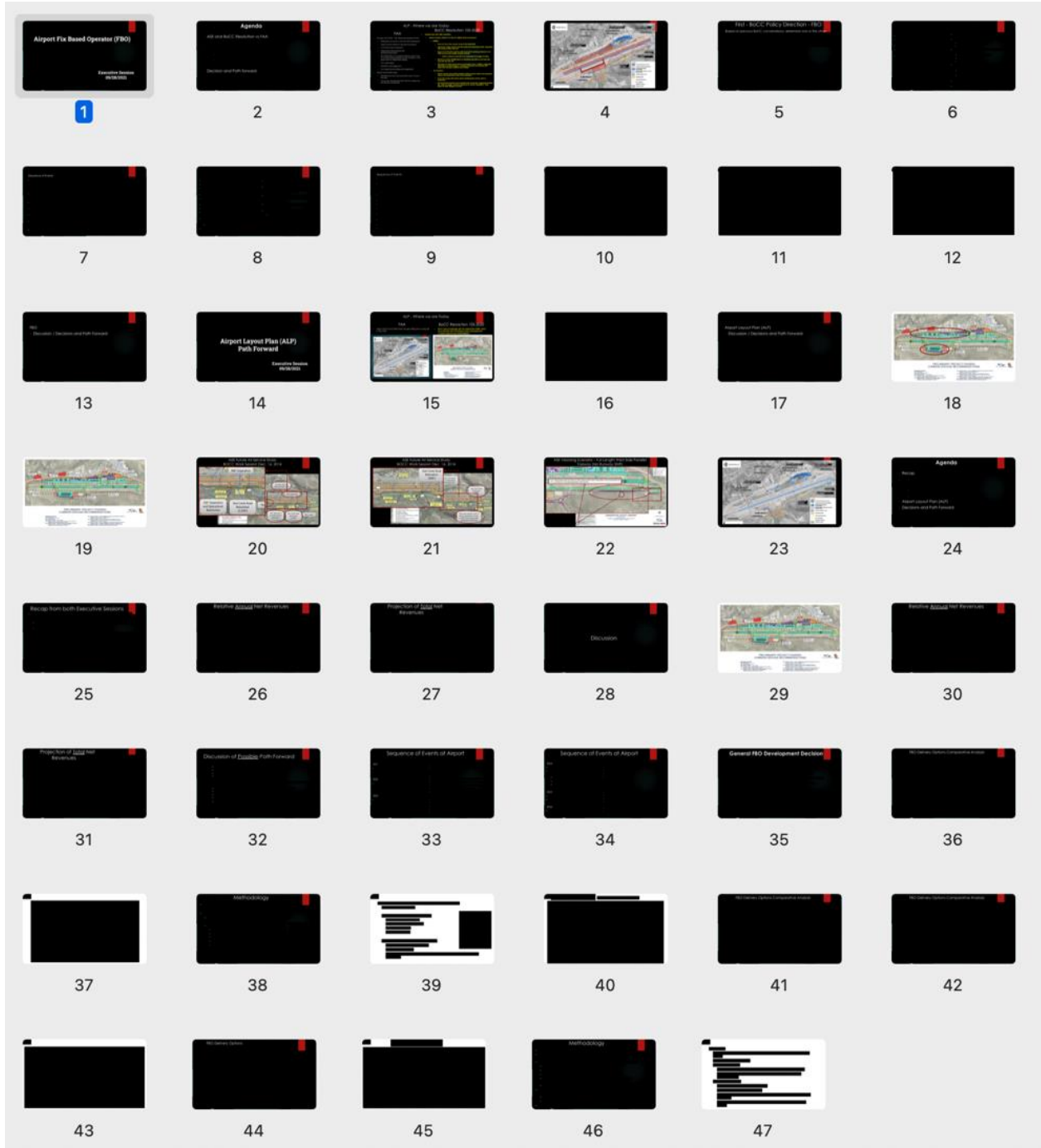
Yet this superficially plausible explanation may not withstand closer examination. It's unclear what information the aviation-expert bidders don't already know, and is so sensitive that citizens mustn't see it before the Commissioners frame or make their decision. Bidders know their own business best; their own economic, financial, and operational data are proprietary; but the County's financials are online. So how does revealing its thinking seriously disadvantage the County?

For whatever reasons, our County Commissioners have apparently chosen not to bring in more, different, and conceivably better ideas from wider sources—perhaps by having independent experts (not all chosen by Staff) debate FBO issues in front of them and field Commissioners' questions until the opportunities and risks are fully illuminated¹⁰³. (Some Commissioners may think they already did this with the [ASE Vision](#) process, but as our background [note](#) explains, that may not be how it worked, and it scarcely dug into FBO issues anyway.) Some citizens simply have a different philosophy about how major public decisions should be made. They feel that the benefits of an open process outweigh any potential drawbacks of revealing how our government is thinking about a big decision, and that holding big cards so close to one's chest isn't likely to yield a winning play and a fair game.

When correspondence with the Airport Director, partly quoted above, failed to elicit further insight into what concepts and evidence the Commissioners were considering, whence, and how, a Colorado Open Records Act request led the County to find eight relevant documents¹⁰⁴. On 16 September 2022, the County released those documents, plus one more from 2 March 2020 (the consultant's brief to the Airport Director). But all eight documents were redacted to hide not only legitimately confidential and commercially sensitive data but also every vestige of analytic structure and content. All eight documents are [posted](#). Fig. 4 (next page) shows a typical example.

Fig. 4 shows an unusual interpretation of governmental transparency. It's probably legal in Colorado, but may not be wise. And as a further clue to underlying intentions, the "open, public process" promised to citizens for the final decision on the deal's structure and duration (p. 15 above) will apparently allow 3-minute public inputs *only on Second Reading* when the Commissioners have already framed the issues, made up their minds, mixed their recipe, and baked the cake. If public scrutiny then discloses better potential outcomes that were overlooked, rejected, or misanalyzed, it will be too late—for another 30 years if not forever.

Fig. 4. The eight documents defining and recording our County Commissioners' consideration of how to replace the expiring Airport FBO contract were redacted to remove virtually every scrap of insight into their broad approach, the evidence they considered, the questions they asked, and the choices they made. Here's a typical example—Staff's brief to the Commissioners' 28 September 2021 Executive Session. On eight slides, even the title line is redacted.



Conclusions

Whether the RFP process now underway is directed at the specific outcome it describes or is only exploratory and abandonable, it can't elicit the broad and independent views that an authentically public and open process would offer. Instead, it's framed entirely by closed-door discussions between the Board of County Commissioners and one or more industry consultants chosen and instructed by County Staff. The public has no visibility, no voice, and no information or analysis except what independent citizens volunteer to provide, as Aspen Fly Right does here.

The County’s comprehensively redacted basic documents will supposedly be released only after a new FBO contract is signed, when there’s no longer a decision to examine and influence. If the Commissioners—perhaps better informed by outside materials like this essay—*did* instead choose to scrap the elaborate responses that industry bidders are now preparing, they’d need to figure out better arrangements, which often takes a couple of years¹⁰⁵. That could be hard to execute before the contract expires on 30 September 2023. Trying to extend that contract to bridge to another might also be challenged as an illegally closed contract award. That’s why we suggested that a searching, open, transparent, timely, independent discussion begin long ago.

Such a radically reframed decision process would not be easy to conduct in the public manner that a sound and defensible outcome requires. After all, the County apparently considered every scrap of content *before* the RFP was written to be too sensitive to reveal. Surely that would be at least as true, if not more so, for new negotiations of very different contract arrangements. Thus so long as the County continues its hermetic approach to the FBO decision, with its vast multi-decade financial implications for our community, assurances of an “open” and “public” process ring hollow, and the potential benefits of wider inputs and public scrutiny will be lost.

The business logic and public benefit of seriously considering a publicly owned, publicly- or contractor-operated Fixed Base Operator for Aspen Airport seem obvious. Whether the fog can lift and that idea can take off depends on the depth of civic understanding and engagement. If not, everyone who depends on Aspen Airport’s General Aviation will have ample time to repent.

¹ Kristi Kavanaugh (Aspen Skiing Co.), personal communication, 2 Dec 2022—probably the best authority on this tangled question. County consultants estimated ASE passengers in 2018 as 28% residents and 72% visitors: https://aspensairport.wpenginepowered.com/wp-content/uploads/2020/09/05.07.19_PowerPoint-Presentation-Parts-1-and-2.pdf, p 46. P 66 estimates that in 2018, when just 48% of ASE operations were General Aviation (p 75), 21% of GA operations (not necessarily passengers) in 2018 were local and 79% itinerant. All these figures may since have shifted significantly, due largely to pandemic-induced major changes in the local real-estate market.

² The total number of passengers is about half that many because most passengers both arrive and leave by air, but the number combining air with surface transport in either direction is unknown.

³ According to the Aspen Chamber Resort Association. They, the Airport, and Aspen Skiing Company would love to know how many visitors arrive by private plane, but anyone can simply get off the plane and walk or drive away without going through the FBO building. It might be possible to estimate arriving GA passengers from the “Persons aboard” line on the filed flight plans, minus explicit assumptions about the typical professional crew count for that aircraft type. However, those plans are seldom amended after unplanned stops to add or deplane passengers.

⁴ The average European private jet carries 4.7 passengers when occupied, but 41% of flights carry none: Transport & Environment (Brussels), *Private jets: can the super rich supercharge zero-emission aviation?*, 2021, p. 12, <https://www.transportenvironment.org/discover/private-jets-can-the-super-rich-supercharge-zero-emission-aviation/>, citing Booz Allen & Hamilton, *Economic Impact of Business Aviation in Europe*, 2017, <https://nbaa.org/wp-content/uploads/aircraft-operations/international/region-v-europe/boozallenhamilton-bizav-impact-on-Europe.pdf>, p. 105. A 2017 FAA study assumed that 40% of itinerant US GA flights carry overnight passengers and that each such flight averaged ~2.84 passengers.: Price Waterhouse Coopers, *Contribution of Generation Aviation to the US Economy in 2018*, 2020, p. 51, <https://nbaa.org/wp-content/uploads/advocacy/legislative-and-regulatory-issues/business-aviation-essential/General-Aviation-Contribution-to-the-US-Economy-20200219.pdf>.

⁵ Airline planes average very roughly 70% full—nearer 100% (64–70 passengers) in busy periods—and carry most Aspen passengers. However, NetJets is an important player, and GA increasingly includes “sub-charter” carriers offering semi-scheduled service to selected cities on planes that may have up to 19 or perhaps even 30 seats. As often in aviation, the details of GA/commercial comparisons have many complexities beyond our scope here. For calibration, FAA’s ATADS database (<https://aspm.faa.gov/opsnet/sys/airport.asp>) shows that in January through October 2022, Aspen Airport had 39,486 “itinerant” operations (9,417 air carrier, 13,234 air taxi, 16,701 General Aviation, and 135 military) plus 4,824 “local” (locally based) operations (4,685 civil, 139 military), for a total of 44,310 operations. The 2021 full-year total was 52,529, with a ten-month equivalent slightly below 2022’s.

⁶ BoCC [Resolution 105-2020](#), p 8.

⁷ Howie Mallory comments to 21 July 2022 Airport Advisory Board meeting, <https://drive.google.com/file/d/1dqYQ1OBoSw4Lgu1qoJ0fFy1ceAEFFMQu/view>, starting at 4:15.

⁸ Airports Council International, “The top 10 busiest airports in the world revealed,” 11 Apr 2022, <https://aci.aero/2022/04/11/the-top-10-busiest-airports-in-the-world-revealed/>. Other metrics, such as focusing on international passengers, yield different results, as shown there.

⁹ <https://privatejetcardcomparisons.com/2021/02/04/only-3-of-the-25-busiest-u-s-private-jet-airports-saw-gains-in-2020/>.

¹⁰ A. Salvail, 22 April 2022, https://www.aspendailynews.com/news/pitkin-county-preparing-rfp-for-airport-s-next-general-aviation-operator/article_4b75fe3a-c1e2-11ec-920a-472d4a8a744c.html.

¹¹ The guaranteed minimum payment to the County can grow with revenues, but adjusts annually to 90% of the previous year and at least 100% of the first year. Alternatively, if an agreed percentage of gross receipts is greater than the guaranteed, the operator must pay the higher amount. In effect, this clause acts as a sort of profit-sharing arrangement, but based on gross revenues, not net profits, and only the FBO knows those data.

¹² The County's brief Airport history is at <https://www.aspenairport.com/about-aspen-airport/history/> and <https://www.aspenairport.com/about-aspen-airport/history/>. It is not entirely consistent with https://en.wikipedia.org/wiki/Rocky_Mountain_Airways (dating Aspen service to 1968) and https://en.wikipedia.org/wiki/Aspen_Airways.

¹³ Response 43, Addendum #4, RFP #001.23, 16 Dec 2022.

¹⁴ B. Gardner-Smith, "Fuel sales could boost airport rent revenues," *Aspen Journalism*, 4 Sep 2012, <https://aspenjournalism.org/private-jet-fuel-sales-now-big-business-in-aspen/>.

¹⁵ B. Gardner-Smith, "Need for second private jet center in Aspen questioned," 24 Sep 2012, <https://aspenjournalism.org/need-for-second-private-jet-center-in-aspen-questioned/>.

¹⁶ National Academies of Sciences, Engineering, and Medicine 2020. *Characteristics of the FBO Industry 2018-2019*, p. 28. Washington, DC: The National Academies Press, <https://doi.org/10.17226/25846>.

¹⁷ Ref. 16, p 22.

¹⁸ NASEM, *op cit*.

¹⁹ Ref. 20, p 12.

²⁰ Atlantic Aviation, 2014 *Form 10-K*, p. 11, https://www.sec.gov/Archives/edgar/data/1289790/000114420415010689/v396879_10k.htm.

²¹ Ref. 16, p 41, Table 16.

²² Ref. 15.

²³ That master plan showed (Ref. 15) "a 5,000-square-foot terminal [the current FBO has 6,000], a 14,400-square-foot aircraft hangar area (some versions of the plan show up to four large aircraft hangars) and a 5,000-square-foot maintenance hangar [current total 30,000], a 280,000-square-foot aircraft parking ramp and an aircraft parking area for at least 30 planes [currently 32 tie-downs and 48 bay patio shelters], a 60-car parking lot, four fuel tanks to store 70,000 gallons of fuel, and an emergency helicopter landing zone....So the criteria for a new private jet facility seem to have been met...."

²⁴ Cliff Runge (who joined original FBO operator ABO in 1984, ran the FBO until 2006, and was instrumental in developing the existing lease and Minimum Standards), email to A. Lovins, 3 Dec 2022. He says "There is plenty of room [for a second FBO, which was supposed to be allowed when Highway was relocated] and it is not difficult to meet the Minimum Standards" without reducing available aircraft parking, especially using a patio-shelter-area layout he proposed long ago. He feels the County has not properly heard his suggestions.

²⁵ B. Gardner-Smith, "Airport working on design guidelines for new facilities," *Aspen Journalism*, 19 June 2013, <https://aspenjournalism.org/airport-working-on-design-guidelines-for-new-facilities/>.

²⁶ M. Osberger, "Aspen runway expansion plans advance," *Aspen Journalism*, 16 Jul 2014, <https://aspenjournalism.org/aspen-runway-expansion-plans-advance/>. She described the second FBO as "an amenity the FAA views favorably as both a revenue source [for the County] and to stimulate more competition."

²⁷ M. Osberger, "County expects bids for second private jet center at airport," *Aspen Journalism*, 11 Aug 2014, <https://aspenjournalism.org/county-expects-bids-for-second-private-jet-center-at-airport/>.

²⁸ *ASE Future Air Service Planning Study Phase III BOCC Work Session* deck, 16 Dec 2014, p 8, <https://www.aspenairport.com/operation/planning/future-air-service-study/>, Phase III tab (link to deck is broken).

²⁹ C. Runge, "Guest Opinion," 9 Jun 2012, <https://aspenjournalism.org/opinion/columns/cliff-runge-guest-opinion/>.

³⁰ These separation and wingspan-limit issues are explained in the County's "Wingspan Restriction Briefing Paper," Mar 2014, <http://www.aspenairport.com/wp-content/uploads/2020/09/Meeting-5-ASE-Wingspan-Restriction-Briefing-Paper-March-2014-PDF.pdf>.

³¹ J. Urquhart, "Aspen airport master plan wins approval," *Aspen Times*, 6 Dec 2012, <https://www.aspentimes.com/news/aspen-airport-master-plan-wins-approval/>.

³² *Future Air Service Study Phase III* [outbrief 2018.pdf](#), p 22.

³³ Ref. 27. The proposal was accepted in 2014 (C. Epstein, "RFP To Be Issued for Aspen Airport FBO," *AInonline*, 7 Oct 2014, <https://www.ainonline.com/aviation-news/2014-10-07/rfp-be-issued-aspen-airport-fbo>), "triggering the mandatory issuance of a request for proposals (RFP)." But that process then got entangled in Airport Layout Plan issues.

³⁴ *Pitkin County Request for Proposals (RFP), General Aviation/Fixed Base Operator (FBO) Services and Facilities, Aspen-Pitkin County Airport Notice to Proposers*, 9 Aug 2022, available from the County's bidding portal to its registrants at <https://www.bidnetdirect.com/colorado/solicitations/open-bids/General-Aviation-FBO-Services-Facilities-at-the-Aspen-Pitkin-County-Airport/0000296022?purchaseGroupId=8409951&origin=1>, or at <https://imlive.s3.amazonaws.com/Pitkin/ID155427454175320038209492102660326372094/RFP%20001.23%20-%20ASE%20FBO%20Services%20Packet%20-%20Final%20%20w%20App%20and%20Attch%202022-08-09%20Compressed.pdf>. We have reposted the RFP [here](https://pitkincounty.ompnetwork.org/embed/sessions/257647/bocc-regular-meeting-11-16-2022).

³⁵ <https://pitkincounty.ompnetwork.org/embed/sessions/257647/bocc-regular-meeting-11-16-2022>.

³⁶ Ref. 53, p 43.

³⁷ S. Condon, "Aspen's aircraft landing fees higher than other mountain resorts," 28 Dec 2014, <https://www.aspentimes.com/news/aspen-aircraft-landing-fees-higher-than-other-mountain-resorts/>. Landing fees are paid by pilots on departure, via Vector Airport Systems. They're charged by weight on all civilian planes that are not locally owned. Per rounded thousand pounds of Maximum Takeoff Weight, the 2023 rate is \$8.16 for airlines (\$11.43 if seasonal) and \$8.33 for General Aviation (\$0 if locally owned). The only way for an out-of-town plane to avoid a landing fee is apparently if a light-plane pilot lands, keeps its engine running, taxis directly back to the takeoff holding point, and leaves without entering the FBO's ramp area.

³⁸ In the terminal in 2023, \$95.09 per square foot-year for airlines' facilities (\$133.13 if seasonal) and shared space, and outdoors, \$31.70 (\$44.38 if seasonal).

³⁹ In pre-pandemic FY2019, these fees comprised the fuel flowage fee of \$523,133 (4.33 million gallons Jet A + 31,757 of 100LL avgas), FBO rent of \$211,829, and the County's 85% share of monthly Patio Shelter Fees, yielding \$196,518, for total FBO rents and fees of \$931,480.

⁴⁰ Ref. 37.

⁴¹ Aspen Airport in 2020 received \$17.5 million of revenues, 52% from service charges like landing fees and the small fuel flowage fee for aviation fuels sold to plane operators. However, 2020 expenses were over \$10 million larger, including \$4.2 million of capital expenditures. (D. Bartholomew, personal communication, 31 May 2022, kindly based on information from Pitkin County Finance Department.) These accounts are only on an operating-cashflow basis and do not include more than \$5 million in annual depreciation, reflecting the gradual deterioration and obsolescence of capital assets that will later need to be rebuilt or replaced. Only the reconciliation to Generally Accepted Accounting Principles

(GAAP) includes that depreciation and thus reflects the long-term financial viability of the Airport. On a GAAP basis, the Airport Fund's 2020 change in position was a loss of \$4.773 million. Details: the Airport's 2020 revenues totaled \$9.113 million charges for services (including \$5.391 million in landing fees—\$2.042 million for airlines and \$3.350 million for General Aviation—and \$0.938 million from the FBO fuel flowage fee (D. Bartholomew, email response to CORA request, 13 Dec 2022, shows 7.814 million gallons of Jet A and 0.028 gallons of Avgas in 2020; the 2021 figures were 9.345 and 0.012 million gallons respectively), \$3.214 million rents, \$2.251 million intergovernmental payments, \$0.662 million miscellaneous, \$0.228 million investment earnings, and \$0.122 million gain on disposition of assets, for a 2020 total Airport Fund revenue of \$17,496 million. Those revenues were about \$3.05 million less than expenses: \$9.812 million purchased services, \$7.673 million other services, \$4.989 million personnel services, \$4.228 million capital expenses (property, plant, and equipment), and \$0.903 million materials and supplies, for total Airport Fund expenses of \$27.666 million.

⁴² Ricondo Associates, "FY2023 Projected Airport Fund Summary," p 5 in "Aspen-Pitkin County Airport: Recommended Rates & Charges," 1 Nov 2022, Ref. 53, packet p 52.

⁴³ Its handy but unlocalized calculator at <https://www.atlanticaviation.com/location/ASE> shows, among others, that landing a 747-800 jumbo jet at Aspen would incur a Facility Fee of \$5,135 (waived if you bought at least 10,569 gallons of fuel—one-sixth of a fill-up), plus a \$45 security fee and perhaps a \$25 Aspen Habitat Fee. The fees would be the least of your worries, as that aircraft's landing weight is 6.9 times the maximum allowed, its wingspan 2.4 times, and it couldn't take off with a payload.

⁴⁴ www.rampfees.me.

⁴⁵ Ricondo, "Aspen-Pitkin County Airport / FBO Analysis Briefing" to Pitkin County Board of County Commissioners, 6 Apr 2021, p 10, and Ricondo, "Fixed-Base Operator Analysis," pp 3.1–3.3. The 2019 average for the 21 GA operations shown was \$95.40 and the median \$56.80. Eagle-Vail's revenue was \$147; Durango's, \$26; Gunnison's, \$29; Grand Junction's, \$28; Montrose's, \$116. Rifle was not included.

⁴⁶ University Park in central Pennsylvania at \$334 and Jackson Hole at \$410, which both had far higher revenues from fuel sales.

⁴⁷ US Energy Information Administration, downloaded 1 Dec 2022 from https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMA_EPJK_PTG_SCO_DPG&f=M; the 2022 data run only through March.

⁴⁸ Throughout, we use the GDP Implicit Price Deflator (<https://fred.stlouisfed.org>)—the best measure of general monetary inflation—rather than the Consumer Price Index.

⁴⁹ For 3,636 FBOs nationwide during 4 Nov – 4 Dec 2022 (<https://www.airnav.com/fuel/report.html>); at least half the data points are <4 days old.

⁵⁰ See <https://leg.colorado.gov/agencies/legislative-council-staff/aviation-fuel-tax%2%A0>. Colorado has both a 22¢/gallon gasoline tax and aviation-fuel excise taxes—6¢/gallon on aviation gasoline and 4¢/gallon on jet fuel—from which commercial airlines are exempt. All fuel sales also incur Colorado's 2.9% state sales tax and County sales tax. State aviation-fuel excise and sales taxes are about two-thirds rebated to the County for the Airport Fund. Specifically, D. Bartholomew (email response to A. Lovins's CORA request, 13 Dec 2022) explains that two-thirds of the aviation-fuel excise tax and 65% of the sales tax are rebated from the State of the Colorado to Pitkin County and go into the Airport Fund. Fuel sales, payment to the state, and rebate by the state occur in consecutive months, though accrual accounting means that December tax (presumably both obligation and expected rebate) go on that year's books. Our analysis ignores the Pitkin County sales tax (3.6% for nonresident buyers) which is apparently allocated to three County funds subject to certain restrictions.

⁵¹ When the Airport's current fees-and-charges policy was set in Resolution No. 87-56: <https://records.pitkincounty.com/Weblink2/DocView.aspx?id=179267&dbid=0&repo=LFRRecords>. We don't know when the fee returned to 12¢.

⁵² <https://records.pitkincounty.com/Weblink2/DocView.aspx?id=107863&dbid=0&repo=LFRRecords&searchid=c3758f84-a1cb-4a30-9a16-4cef4d03a357>.

⁵³ New Rates & Charges document distributed with Addendum #4 to RFP#001.23, 16 Dec 2022. Staff and the consultant had first recommended an unchanged 12¢/gal flowage fee: see pp 43–53 of the 16 Nov 2022 BoCC meeting's packet, Airport item 2nd reading, for Recommended Rates & Charges, <https://civicclerk.blob.core.windows.net/stream/PITKINCOCO/28803723-3edf-460c-9ed4-91a722a16c42.pdf?sv=2015-12-11&sr=b&sig=DUG8HK6%2FumITuGJempZpZqT7AvZD2IJ3WGOE18GY8U0%3D&st=2022-12-22T23%3A08%3A47Z&se=2023-12-22T23%3A13%3A47Z&sp=r&rscc=no-cache&rsct=application%2Fpdf>.

⁵⁴ <https://records.pitkincounty.com/Weblink2/DocView.aspx?id=195058&dbid=0&repo=LFRRecords>.

⁵⁵ <https://pitkincounty.com/DocumentCenter/View/29638/Resolution---Airport>,

<https://www.pitkincounty.com/DocumentCenter/View/29639/Posted-November-3-2022>. The BoCC was orally informed of the 2023 increase to 14¢/gal on Second Reading, without supporting analysis (<https://pitkincounty.ompnetwork.org/embed/sessions/257647/bocc-regular-meeting-1-16-2022>, at 23:00), and it approved the whole revised 2023 rates and charges schedule without substantive discussion.

⁵⁶ Airport Director Dan Bartholomew (personal communication to A. Lovins, 30 Aug 2022) says it's "used by the County to offset expenses in the airfield cost center including such things as the cost of personnel/staff needed to ensure compliance with 14 CFR Part 139 like fuel farm, fuel truck daily/quarterly inspections and fueler training recordkeeping." It's unclear whether this narrow definition is mandatory.

⁵⁷ In Response #48, Addendum #4, RFP #001.23, 16 Dec 2022, an applicant to bid complains that "Gross margins on the retail sale of aviation fuel tend to be fairly stable, even with minor or major fluctuations in the fuel cost of goods sold (COGS). Therefore, a percentage fee on retail sales of aviation fuel would increase County revenues, but decrease the FBOs [*sic*] gross margin (especially during increases in Jet A COGS, such as what happened over the past 12 months)." Fig. 3 suggests that gross margins are *not* "fairly stable" at ASE because the monopolist can capture all the profit available. The County apparently recognizes this issue and is trying to address it with the proposed new revenue stream.

⁵⁸ Ref. 84, p 13.

⁵⁹ West Texas Intermediate FOB Cushing, Oklahoma, from US Energy Information Agency data series EIA PET_PRI_SPT-S1-M.xls, https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm.

⁶⁰ Bloomberg Terminal series MOIGC87P (Gulf Coast gasoline 87 octane conventional prompt).

⁶¹ EIA PET_PRI_SPT-S1-M.xls wholesale weekday spot price FOB US Gulf Coast (EER_EPJK_PF4_RGC_DPG), https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm.

⁶² Bloomberg Terminal RACKPD4N PS4 B, Jet Fuel PADD Region 4 Net Rack Fuel Price Average / Branded. The PADD 4 Region is the central and northern Rocky Mountain states including Colorado and Utah. This is the best affordable and current surrogate for USEIA's Colorado-specific refiner petroleum product prices for resale (Ref. 47), which by 20 Dec 2022 were posted only through March. In March 2022, Jet A sales to end-users were priced at \$3.310/gal, and for resale, at \$3.397/gal, compared with \$3.037/gal for motor-gasoline (all grades) sales for resale. In other words, only dimes separate the typical gasoline and Jet A wholesale prices in Colorado's region.

⁶³ Gasoline is a lighter, higher-grade product enriched with costly hydrogen, while jet fuel is kerosene, a "middle distillate" more like diesel fuel. But since more than five times as much gasoline as jet fuel is produced, and by more refiners (intensifying competition), its wholesale price is up to a few dimes lower.

⁶⁴ By 1 Dec 2022, the US Energy Information Administration had published Jet A prices for January–March 2022 for refiners’ sales averaged across the whole US (file PET_PRI_REFOTH_DCU_NUS_M.xls) and in Colorado (PET_PRI_REFOTH_A_EPJK_PTG_DPGAL_M.xls); monthly historical data are at https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMA_EPJK_PWG_SCO_DPG&f=M and are available for nearby states like Utah (EIA PET_PRI_REFOTH_A_EPJK_PTG_DPGAL_M.xls). All track within ~15¢/gal of the Gulf Coast benchmark price.

⁶⁵ Aspen-area retail gasoline price series are unfortunately unavailable or proprietary, so we used Bloomberg’s SRF1QRCA dataset for taxed regular unleaded retail gasoline in Denver. Most or all Aspen-area filling stations should have broadly similar fuel transportation costs from Denver, Grand Junction, or the sites of other dealers or refiners.

⁶⁶ Courtesy of FlightAware (flightaware.com), which posts daily fuel prices for each FBO; Aspen’s are at <https://flightaware.com/resources/airport/KASE>.

⁶⁷ Courtesy of Globalair.com, whose FBO fuel prices are live at <https://www.globalair.com/airport>. Aspen is compared with nearby FBOs at <https://www.globalair.com/airport/fuelmap.aspx?aptcode=ase&av=pu&rad=70&factype=airport&rwby=any&app=&fuelbrand=>.

⁶⁸ There may be differences in reporting date, perhaps tax inclusion, and conceivably unknown factors between these two widely used data sources, so neither should be interpreted as overly precise, but they agree qualitatively with each other and with other popular pilot data sources.

⁶⁹ The Aircraft Owners and Pilots Association, aopa.org, is a strong advocate of FBO price competition, e.g. <https://www.aopa.org/news-and-media/all-news/2017/may/pilot/battling-fbo-fees>.

⁷⁰ The Jet A price is full-service (into-plane), while the gasoline price is self-service. However, the gasoline price includes 12.5¢/gal more Colorado and Federal taxes than the Jet A (40.4¢ vs. 27.9¢)—a plausible placeholder for the marginal cost of the fueling service by FBO staff. **Correction added 5 Jan 2023: That comparison appears to have understated certain local and Federal taxes. Taxes on a typical 100-gallon Jet A purchase at ASE in 2021 totaled 47.3¢/gal, nearly half from the 24.4¢ Federal excise tax (<https://www.irs.gov/businesses/small-businesses-self-employed/using-the-correct-irs-no-on-form-720-kerosene-used-in-aviation>). The FBO’s County sales tax on fuel appears to total 4.0%.**

⁷¹ Leadville data for full-service Jet A, courtesy of Leadville/Lake County Airport (LXV) Director Josh Adamson, personal communication with A. Lovins, 24 Dec 2022 (including 40¢/gal service fee, and despite that airport’s enormously lower sales volumes; \$7.50/gal that day confirmed by <https://www.globalair.com/airport/fuelmap.aspx?aptcode=ase&av=pu&rad=70&factype=airport&rwby=any&app=&fueljeta=true&fuelbrand=>.

⁷² On 1 Dec 2022, the Aspen FBO was reported by industry-standard websites to be charging \$9.91/gal (“full service”—delivered into the plane) for Jet A fuel; on 20 December 2022, \$9.59/gal. (We didn’t confirm that spread, and such websites are not always fully accurate, but it doesn’t much affect the conclusion.) The price had been close to \$10/gal since May 2022.

⁷³ US Energy Information Administration data show that Colorado refiners charged an average of \$2.87/gal in the first quarter of 2022 (the latest dataset available at 22 Dec 2022): https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMA_EPJK_PTG_SCO_DPG&f=M. Fig. 3 shows wholesale US prices were similar in the first and fourth quarters of 2022.

⁷⁴ “Naples Airport Authority, Rates and Charges, Fiscal Year 2023,” <https://www.flynaples.com/wp-content/uploads/Rates-and-Charges-FY-2023-2.pdf>. The FY23 adder to NAA’s wholesale fuel cost to NAA is \$0.95/gal for all FBO capital, operating, and overhead costs, plus \$1.00/gal (for Jet A, or \$0.50/gallon for Avgas) for the public owner’s return “for assuming the inherent risks to provide fuel services including the investment in FBO facilities and equipment,” plus a compensatory fee of \$0.55/gal to recover the airfield’s annual operating and capital recovery cost. Seventeen kinds of unbundled GA fees (including a \$25–1,250 ramp fee depending on propulsion and size class) are also clearly described, plus parking, storage, and building leasing. As noted earlier, Naples has fuel revenue 5.3 times Aspen’s per itinerant GA operation. Naples’s airport has robust finances and reportedly excellent operations. Its customers benefit from competitive fuel prices

⁷⁵ Rifle has an irregular GA traffic pattern, with the majority of landings diverted from other airports—about two-thirds of them from Aspen.

⁷⁶ In fairness, fuel shipments can more directly reach Leadville than Aspen by road from I-70.

⁷⁷ M. Phelps, “FBO Profile: Aspen Base Operation / Trajen,” 18 Oct 2006, <https://www.ainonline.com/aviation-news/aviation-international-news/2006-10-18/fbo-profile-aspen-base-operation/trajen>.

⁷⁸ M. Phelps, “Employees at Aspen’s Atlantic Aviation FBO Get a Housing Boost,” 8 Mar 2011, <https://www.avweb.com/aviation-news/employees-at-aspens-atlantic-aviation-fbo-get-a-housing-boost/>.

⁷⁹ KKR had \$491 billion in Assets Under Management at mid-2022: <https://money.usnews.com/investing/slideshows/largest-private-equity-firms?slide=3>.

⁸⁰ National Academies, *Airport Operator Options for Delivery of FBO Services*, 2018, <https://nap.nationalacademies.org/catalog/25039/airport-operator-options-for-delivery-of-fbo-services>. The same source also publishes a useful guide for self-operated FBOs: *Airport Management Guide for Providing Aircraft Fueling Services*, 2019, <https://doi.org/10.17226/25400>.

⁸¹ This letter, outlining nine main concerns about Aspen Airport’s airside evolution, was marked Confidential but considered a public document by the County, which nonetheless has not posted it and provides it to citizens (not in its original form but only with the added Staff commentary) only in response to formal Colorado Open Records Act requests. For citizens’ convenience, the original letter is posted [here](https://www.aspenair.com/airside-evolution) and the version including Staff comments [here](https://www.aspenair.com/airside-evolution).

⁸² County operations if the County ran the FBO, because FAA requires charges to fund airports, not local governments’ General Fund.

⁸³ This originally but erroneously read “landing fees.” The Airport Director kindly clarified that landing fees are set by the Board of County Commissioners and charged on behalf of the Airport, while the FBO charges its own separate fees, largely or wholly for its own benefit.

⁸⁴ County Staff response to 19 April 2022 letter by Amory Lovins to Board of County Commissioners and Airport Advisory Board, Ref. 81.

⁸⁵ D. Bartholomew, email “FBO Question” to A. Lovins, 23 Aug 2022. A side-discussion began 1 Aug 2022 when Dan Bartholomew e-mailed Ellen Anderson that “the County would be required to solely own and operate the FBO and could not hire an outside manager (per FAA regulations). Assuming the County would be required to staff FBO services equivalent to the existing operator, this would require the hiring of at least 52 additional County employees.” On 22 Aug 2022, Amory Lovins asked which FAA regulations require this, and Mr. Bartholomew replied: “FAA Order 5190.6B, also known as the “Airport Compliance Manual” is the primary regulatory document which would include guidance on the Exclusive Rights (Sole FBO operator) at a public use airport facility. / There are only three conditions in which it would be permissible for the Airport to maintain the exclusive right to operate the sole FBO on the facility:

[1] The owner of an airport elects to provide aeronautical services exclusively using its own employees and resources. This is often referred to as a “proprietary exclusive right.”

[2] Imposing reasonable qualifications and minimum standards in a non-discriminatory manner on those who want to engage in aeronautical services (Such as an FBO)

[3] Denying a request to a qualified party seeking to provide FBO services where (1) it would be unreasonably costly, burdensome and impractical for more than one entity to provide FBO services; (2) the airport would have to reduce the leased space that is currently being used by the existing FBO in order to accommodate a second provider.”

On 23 Aug 2022, Lovins replied: “Order 5190.6B is very clear that public-use airports can, and are encouraged to, competitively engage a private operator (or multiple ones) to provide FBO services using that operator’s employees and resources. The second alternative listed does not require the County to staff FBO operations. [Ref. 80 discusses options, with a summary on p. 12.] What I think many citizens are curious about...is the option of the County’s owning the FBO and hiring a private operator to run it under contractual conditions reflecting the County’s policies. This landlord/tenant relationship is indeed the norm [linking https://www.faa.gov/airports/airport_compliance/media/QAs-FBO-Consolidation-Pricing-final.pdf]. But whether to bundle or separate the functions of ownership and operation is up to the parties. Both the capital and the operating costs, like the revenues, can be allocated between the County and a private FBO operator in various ways depending on negotiation and contract. / The County has chosen one option in the current RFP, without revealing any analysis supporting that logic or justifying the proposed 30-year duration. Ellen [Anderson], I, and other interested citizens are requesting full transparency about the basis for that choice.”

⁸⁶ D. Bartholomew, email “FBO Question” to A. Lovins, 6 Sep 2022.

⁸⁷ Airport Advisory Board meeting, 20 Oct 2022, https://drive.google.com/file/d/1I2_ISScBHeXRn4J87bKWSM0F5AAPHG7/view, 1:49:06-1.53.

⁸⁸ National Academies, first Ref. 80, pp 49–51.

⁸⁹ M. Koshmrl, “Airport buys FBO for \$26M,” *Jackson Hole Daily*, 2 Nov 2017,

https://www.jhnewsandguide.com/jackson_hole_daily/local/airport-buys-fbo-for-26m/article_d25fbbff-1122-5f10-81e1-4772486383d9.html.

⁹⁰ Ricondo Associates, “ASE Modernization Program—‘Landside Improvements First,’” 4 Feb 2021, a rare unredacted page from the County’s “Airport Update, Executive Session, 09/14/2021.”

⁹¹ Ref. 88, p 10.

⁹² *Id.*, p 34.

⁹³ A Colorado Open Records Act request submitted 29 Nov 2022 asks (as amended): “I understand that Pitkin County’s Lease and Redevelopment Agreements (1993–2023) with the Airport’s Fixed Base Operator contain many provisions that allow the County to require disclosure of otherwise unpublished FBO operational and financial data, and that allow the County to impose taxes or fees on certain FBO revenues. Some provisions may also authorize County control or influence over certain pricing by the FBO. I seek the date, summary outcome, and any written report(s) of any instance(s) in which any of these provisions have been used. Thank you.” Dan Bartholomew’s 19, 22, and 22 Dec 2022 replies report no instances in any of these categories, and his 19 Dec response says: “We have not received any Formal Complaints regarding pricing [sic] practices associated with the FBO, therefore, no instances have required the County to ‘influence’ pricing applied by the FBO.”

⁹⁴ Ref. 88, pp 35–36.

⁹⁵ Particularly §10.40.020, Required Facilities, Activities and Services, pp 69–71,

https://www.pitkincounty.com/DocumentCenter/View/8206/title-10-airport_wc?bidId=.

⁹⁶ Response #11, Addendum #4, RFP #001.23, 16 Dec 2022.

⁹⁷ Dan Bartholomew’s 7 Dec 2022 email “Quick Qs” to Amory Lovins (see also following note) says: “We do not have any logged formal complaints related to the FBO....Any complaint that I have received from a pilot or aircraft owner, related to the FBO, has focused on either the cost of services and/or the limited availability of additional aircraft tie-downs/patio shelters, and are [sic] communicated via a phone call or as part of a passing conversation.” We wonder if complaining customers realized that their complaints would not be considered “formal” and wouldn’t be logged, or knew what they would have to do to achieve that elevated status. Apparently without logging, no information is available about the frequency, number, or intensity of complaints nor about what if anything was done about them.

⁹⁸ On 27 Nov 2022, Amory Lovins emailed Dan Bartholomew: “I’m curious how the County assesses customer satisfaction with the FBO operator’s service....I...wonder if there’s any kind of GA customer survey or other feedback process, and if so, where I can see its results.” On 1 Dec 2022, he replied: “The County does not perform a customer satisfaction survey of the FBO. The FBO is required to adhere to their lease agreement with the County and conform to Title 10 of the County Code. On occasion, we will receive complaints from an FBO client. When this does happen, we will make every attempt to address the issue with the FBO, if applicable.” On 4 Dec 2022, Lovins responded: “Dan, as a believer that feedback makes systems more intelligent, while systems without feedback are stupid by definition, your kind reply makes me wonder if the FBO complaints you describe are available, together with their outcomes. I’m also curious how the RFP selection process proposes to assess customer satisfaction performance of the incumbent vs. competing applicants.” The last sentence went unanswered, but he replied on 6 Dec 2022: “We do not formally track FBO complaints unless they are operational (FAA Regulatory or Title 10) or security related.” Lovins requested clarification, quantification, and access to non-security complaints, with no reply by this writing (27 Dec 2022). Mr. Bartholomew also wrote, “A survey of FBO users likely wouldn’t be a significantly significant [sic] exercise since the vast majority of their clients do not enter the FBO Terminal (where a survey would be administered) or they would not respond to it (choosing instead to address the complaint with the FBO corporate entity). The incumbent and/or replacement FBO would have to adhere to the same regulations/County Code. They would also be beholden to a revised lease agreement which would outline their specific operating requirements.” Lovins asked if anyone is responsible for periodic assessment of the operator’s Title 10 compliance. Mr. Bartholomew’s 7 Dec response (Ref. 97) says most GA pilot/owner complaints are about service cost, limited aircraft parking, or minor security infractions; the FBO is inspected daily; any Title 10 or airport-enforceable FAA infractions are then addressed; and “We...do not show any Title 10 violations.” Apparently no number of complaints about maintenance services would be so interpreted unless they somehow rose to the level of a Formal Complaint.

⁹⁹ C. Epstein, “FBO Survey 2020: Facilities serve growing market,” 2020,

https://www.ainonline.com/sites/default/files/pdf/fbo_survey_2020_compressed_1.pdf.

¹⁰⁰ According to p 1 of the heavily redacted Ricondo “Fixed-Base Operator Analysis,” April 2021.

¹⁰¹ The winning bidder, if any, will be chosen by a committee of five County staff (two with aviation backgrounds), a County aviation consultant, a County financial advisor, and Snowmass Village’s hired Manager.

¹⁰² D. Bartholomew, email “FBO question” to A. Lovins, 30 Aug 2022, copying the County Attorney and Deputy County Manager (formerly the Temporary Airport Director).

¹⁰³ As proposed by Amory Lovins in a 7 Sep 2022 email “FBO question” to Dan Bartholomew.

¹⁰⁴ Four by Staff, three by consultant Ricondo Associates, all supporting six Executive Sessions of the Board of County Commissioners between 6 April 2021 and 15 February 2022. D. Bartholomew, email “FBO Analysis Request” to Amory Lovins, 9 Sep 2022 says (reformatting his lists): “The documents which have been identified are as follows: 1. “Airport Update”, 04.06.2021, Pitkin County Staff; 2. “ASE FBO Analysis – Consolidated”, 04.15.2020, Ricondo Associates; 3. “ASE FBO Analysis Briefing”, 04.06.2021, Ricondo Associates; 4. “ASE Supplemental FBO Analysis – Summary Results”, 08.13.21, Ricondo Associates; 5. “Airport Update” 09.14.2021, Pitkin County Staff; 6. “Airport Update Recap and Path Forward”, 09.21.2021, Pitkin County Staff; 7. “Airport Fixed Base Operator (FBO)”, 09.28.2021, Pitkin County Staff. A discussion of

the future operating structure of the FBO was taken to Board of County Commission (BoCC) Executive Sessions on the following dates: 04.06.2021, 09.14.2021, 09.21.2021, 10.05.2021, 12.14.2021, 02.15.2022.¹⁰⁵ The attached BoCC Work Session agendas contain the following descriptions of items proposed “for possible discussion at executive session” not open to the public: 6 Apr 2021, “Discussion of FAA negotiations and receiving legal advice relative to FAA airport regulatory and development requirements and the Citizen Vision Committee report / Discussion of airport FBO Lease and to receive legal advice relative to lease structure and options for lease amendments. Pursuant to CRS 246402 4(e) and 4 (b)”; 14 Sep 2021, “FBO Options and Potential Lease Structures Negotiations; Legal Advice Relative to Lease Structure and Options for Lease Amendments and FAA Airport Requirements Pursuant to CRS 24-6-402 (4) (b) (e)”; 21 Sep 2021, “Proposed items for possible discussion at executive session: FBO Options and Potential Lease Structures Negotiations; Legal Advice Relative to Lease Structure and Options for Lease Amendments and FAA Airport Requirements Pursuant to CRS 24-6-402 (4) (b) (e)”; 5 Oct 2021, “ASE Fixed Base Operations (FBO): Discussion with Counsel Pursuant to CRS 24-6-402 (4) (b)”; 14 Dec 2021, “Airport FBO options and potential lease structure negotiations; legal advice relative to lease structure and option for lease amendments and FAA airport requirements, Pursuant to CRS 42-6-402 4(b) and (e)”; and 15 Feb 2022, “Airport FBO Option and Potential [sic] Lease Structure and Options for Lease Amendment and FAA Airport Requirements, pursuant to CRS 42-6-402 (4)(b) and (e)”. No further information was made available to the public about the structure or content of these discussions.

¹⁰⁵ National Academies, first Ref. 80.