GENERAL AVIATION AFTERMARKET CONSOLIDATION & COMPETITION REPORT

An Analysis of Mergers, Acquisitions, and Market Concentration in the STC and PMA Ecosystem

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Executive Summary

The general aviation (GA) aftermarket for Parts Manufacturer Approval (PMA) parts and Supplemental Type Certificate (STC) products are undergoing a significant consolidation wave driven by private equity investment and platform-building acquisition strategies. This report documents the key trends, case studies, economic impacts, and policy considerations surrounding this consolidation for the benefit of aircraft owners, maintenance professionals, and policymakers.

The U.S. general aviation fleet is among the oldest in the world, averaging more than 50 years of age according to FAA estimates, creating persistent and inelastic demand for replacement parts. Simultaneously, a new generation of well-capitalized investors has recognized the pricing power embedded in PMA approvals and STCs — regulatory approvals that function as de facto exclusive franchises on specific aircraft modifications and replacement components.

Key Finding: Between October 2021 and December 2025, Vance Street Capital's Victor Sierra Aviation Holdings platform (formerly VS Aviation) acquired at least seven distinct GA aftermarket companies, assembling an estimated catalog of 3,500+ proprietary PMA parts and 40,000+ total replacement parts distributed to 45,000+ unique customers — making it one of the most significant consolidators in the light GA parts sector.

The dominant case study in this report is the Victor Sierra Aviation Holdings platform, anchored by McFarlane Aviation and Tempest Aero Group, and supported by acquisitions of Airforms, Great Planes Fuel Metering, PMA Products, and Aviation Products Systems. McFarlane has also independently executed a series of smaller bolt-on transactions, acquiring the PMA product lines of South Seas Ventures (December 2025) and the STC portfolio of P. Ponk Aviation (November 2025).

While proponents of these transactions argue that consolidation preserves at-risk product lines from founder-led companies with no succession plans, critics and affected aircraft owners raise

concerns about: reduced competition on individual PMA part numbers; potential for post-acquisition price increases; reduced incentive to develop competing parts for the same aircraft type; and the gradual concentration of aftermarket power in the hands of a small number of PE-backed platforms.

Key Findings at a Glance

Category	Finding
Consolidation Pace	At least 6 major acquisitions in the light GA PMA segment since 2021, primarily by one PE-backed platform (Victor Sierra / Vance Street Capital).
Market Scope	Victor Sierra now controls 3,500+ proprietary PMA parts covering Cessna, Piper, Beechcraft, Grumman, and Ag-Cat aircraft — spanning airframe, engine, fuel, ignition, filtration, and wheel/brake systems.
STC Acquisitions	McFarlane/Victor Sierra has acquired STC portfolios from P. Ponk Aviation (landing gear, hinge bearings for Cessna 170–206) and other niche developers, concentrating STC ownership for specific legacy platforms.
Fleet Context	The FAA estimates the GA fleet average age exceeds 50 years, creating long-duration, inelastic demand for legacy parts — a key driver of investor interest.
Regulatory Gap	Current FAA regulations provide no mechanism to compel STC holders to license to competing manufacturers, creating potential single-source dependencies for some modifications.
Market Counterweight	HEICO Corporation (commercial aviation focus) provides an industry model of how scale PMA platforms can also reduce prices — not exclusively raise them. The GA sector lacks a direct equivalent.
Policy Urgency	Without proactive policy responses, continued consolidation could: reduce part availability, increase prices for low-income aircraft owners, and contribute to the decline of backcountry and legacy aircraft fleets.

Section 1: Background and Market Context

1.1 The General Aviation Parts Ecosystem

The general aviation aftermarket for replacement parts operates within a complex web of FAA regulatory approvals that determine who can legally manufacture and sell components for certificated aircraft. Two key regulatory mechanisms are central to understanding market competition dynamics:

Parts Manufacturer Approval (PMA)

A PMA is an FAA production approval granted to a company to manufacture and sell specific replacement parts for certificated aircraft. PMA holders must demonstrate that their parts meet or exceed original design specifications and are manufactured under an approved quality system. Critically, multiple companies can hold PMAs for the same part — enabling price competition. However, obtaining a PMA requires substantial engineering investment, testing, and FAA approval time, creating significant barriers to entry that protect incumbents.

According to industry analysts, the global PMA market was valued at approximately $11.4 billion in 2024, with North America representing approximately 40% of market share. The general aviation sub-segment is a fraction of this total but is particularly significant to individual aircraft owners who pay directly out-of-pocket for maintenance.

Supplemental Type Certificates (STC)

An STC is an FAA type certificate issued to approve a specific major modification or upgrade to a certificated aircraft. STCs grant the holder exclusive authority to produce modification kits, approve installations, and license the modification to others. Unlike PMAs, STCs are inherently exclusive — only the STC holder can authorize the modification, although they can (and sometimes do) license other manufacturers to produce the required parts.

This exclusivity creates significant market power. For a specific aircraft upgrade — say, an engine conversion on a Cessna 182 — there may be only one company in the world legally authorized to sell the approved kit. Price competition is impossible unless an entirely separate STC is developed by a different entity — a process requiring years of engineering work and FAA engagement.

1.2 The Aging GA Fleet as a Demand Driver

The FAA has estimated that the general aviation fleet of approximately 150,000 registered aircraft has an average age of more than 50 years. Many Cessna 172s, 182s, 180s, Pipers, and Beechcraft aircraft currently in operation were manufactured in the 1950s through 1980s. Their original manufacturers — in many cases, no longer in business or under entirely different ownership — provide limited or no support for these legacy airframes.

> *This creates a persistent, inelastic aftermarket: aircraft owners who have invested heavily in their aircraft (sometimes $100,000 or more for a vintage taildragger in airworthy condition) have no substitute if a specific part becomes unavailable or unaffordably expensive. The parts market for a 1960 Cessna 180 is therefore far less competitive than the market for a 2020 Cirrus SR22.*

The FAA noted in a 2023 publication that the GA fleet is being used well beyond the flight hours and years originally envisioned during aircraft design — a consequence of new aircraft prices exceeding $500,000 for basic piston singles, pricing most private pilots out of new-aircraft ownership.

1.3 Private Equity's Discovery of Aviation Aftermarkets

Private equity firms have increasingly recognized aviation aftermarkets — both commercial and general aviation — as attractive investment targets due to: (1) inelastic demand from captive aircraft fleets; (2) regulatory moats created by FAA approvals that are difficult for competitors to replicate; (3) aging populations of founder-led businesses with no succession plans; and (4) opportunities to achieve economies of scale through consolidation.

In commercial aviation, HEICO Corporation pioneered this model over decades, growing through serial acquisitions to a market capitalization exceeding $36 billion as of early 2026. HEICO's model — manufacturing PMA parts at lower cost than OEM equivalents, thereby capturing cost-sensitive airline maintenance budgets — demonstrated the structural attractiveness of the aftermarket. Its 2023 acquisition of Wencor Group for approximately $2.05 billion was its largest ever, further consolidating the commercial aviation PMA segment.

The general aviation sector is now experiencing a similar, if smaller-scale, consolidation dynamic — with Vance Street Capital's Victor Sierra Aviation Holdings platform as the most prominent current example.

Section 2: Case Study — Victor Sierra Aviation Holdings (McFarlane / Vance Street Capital)

2.1 Overview and Formation

Vance Street Capital LLC, a Los Angeles-based middle-market private equity firm focused on "highly engineered solutions businesses" across aerospace, defense, industrial technology, medical, and life sciences, initiated its GA aftermarket platform in October 2021 through the acquisition of McFarlane Aviation, Inc., a family-owned business founded in 1970 and headquartered in Baldwin City, Kansas.

At the time of acquisition, McFarlane was already among the most significant independent PMA manufacturers in the light GA segment. Founded by Dave McFarlane, the company had grown from its first PMA (Cessna seat rollers and washers in 1989) to an operation holding approximately 3,000 proprietary PMA parts across Cessna, Piper, Grumman, Beechcraft, and Ag-Cat aircraft — distributing more than 30,000 consumable parts to over 40,000 customers worldwide.

In 2022, Vance Street added a second major platform company by acquiring Tempest Aero Group (TAG), a North Carolina-based designer and manufacturer of proprietary new and replacement components specializing in ignition, filtration, fuel, and pneumatic components for GA aircraft.

2.2 The Acquisition Timeline

Date	Company / Product Line Acquired	Significance
Oct 2021	McFarlane Aviation (Platform)	PE acquisition of 50-year-old family business with ~3,000 proprietary PMAs for Cessna, Piper, Grumman, Beechcraft, Ag-Cat. First Vance Street Fund III platform investment in GA.
2022	Tempest Aero Group (Platform)	Second major platform. Adds ignition, filtration, fuel, and pneumatic components. Headquarters in North Carolina. Significant commercial GA customer base.
Jun 2022	Airforms, Inc.	Wasilla, AK-based manufacturer of engine baffles and Cessna Caravan components. Founder-led for ~25 years. First McFarlane add-on post-PE. Adds Alaska/bush aviation product lines.
2023	Great Planes Fuel Metering	FAA-certified repair station for Continental fuel injection MRO services. Expands VS platform into MRO/repair operations for legacy engines.
Early 2024	PMA Products, Inc.	Founded by Charlie and Pam Causey. 20+ year company producing PMAs for Piper, Beechcraft, Cessna, and PT6 turboshaft engines. Focus: bearings, bushings, seals, landing gear components.
Aug 2024	Aviation Products Systems, Inc. (APS)	Proprietary replacement wheel and brake components plus custom hose kits for GA and business aviation. Expands platform into wheel/brake segment. Triggers formal rebranding to Victor Sierra Aviation Holdings.
Nov 2025	P. Ponk Aviation STCs	Acquisition of 4 STCs covering landing gear and rudder-elevator hinge bearing upgrades for Cessna 170, 180, 182, 185, and 206. Founder Steven Knopp died; widow sold STC portfolio.

Dec 2025	South Seas Ventures PMA Line	Broad PMA product line for Beechcraft Bonanzas and Barons. Landing gear, door components, flight control hardware. Expands reach into Beechcraft fleet.

2.3 Platform Scope and Market Position

As of late 2025, the Victor Sierra Aviation Holdings platform controls what may be the broadest catalog of proprietary PMA parts for light GA aircraft of any single company. By its own characterization, the platform offers "nose-to-tail" coverage across the following product categories:

- Airframe components: cables, seat rails, rudder pedals, steering rods, push-pull controls, door hardware
- Landing gear and suspension systems: main gear kits, gear attach angles, gear box brackets
- Engine baffles and cooling systems (Airforms)
- Fuel system components: fuel pumps, Continental fuel injection MRO (Great Planes), fuel nozzles
- Ignition, filtration, pneumatic components (Tempest Aero Group)
- Wheel and brake systems (Aviation Products Systems)
- Bearings, bushings, seals across landing gear, fuel systems, flight controls (PMA Products)
- STC modification kits: landing gear upgrades for Cessna 170/180/182/185/206 (P. Ponk)

The platform collectively serves 45,000+ unique customers, maintains 3,500+ proprietary PMA parts, and distributes 40,000+ total replacement parts and consumables. This scale represents a meaningful concentration of supply for owners of Cessna, Piper, Beechcraft, Grumman, and Ag-Cat aircraft.

2.4 Succession Planning vs. Strategic Consolidation

A recurring theme in Victor Sierra's acquisition announcements is the framing of transactions as succession planning solutions for aging founders of family-owned businesses. This framing is partially accurate and deserves careful examination.

In several cases — notably Airforms (founder Lee Budde), PMA Products (Charlie and Pam Causey), and P. Ponk Aviation (Steven Knopp, who died before the sale was completed) — the acquired companies appear to have been genuinely facing succession challenges. The aviation community has legitimate reason to be grateful that viable product lines were not simply abandoned. Abandoned STCs, in particular, create serious problems for aircraft owners who cannot legally obtain replacement parts for approved modifications.

> *The "abandoned STC" problem is real and growing. FAA Order 8110.120 describes the process for dealing with abandoned STCs, which requires a three-year waiting period in most cases before engineering data can be transferred. When STC holders die without succession plans, affected aircraft can be grounded or rendered non-airworthy for modification-specific components — a direct safety and economic harm to aircraft owners.*

However, the pattern of multiple acquisitions by the same PE-backed platform raises questions beyond simple succession planning. When a single entity acquires not just one or two but six or more independent PMA companies — each covering different product lines for the same fleet of

aircraft — the cumulative effect is the creation of a broad-coverage aftermarket monopolist, even if each individual acquisition appears benign in isolation. The strategic objective appears to be "nose-to-tail" coverage: a position in which Victor Sierra can supply the majority of non-OEM replacement parts for common GA aircraft types.

2.5 P. Ponk Aviation STC Acquisition: A Deeper Look

The acquisition of P. Ponk Aviation's STC portfolio by McFarlane in November 2025 illustrates both the opportunity and the concern in STC consolidation. P. Ponk was founded in 1978 by Steven and Norma Knopp, who developed engine conversions and landing gear upgrades based on their extensive experience operating Cessna 180s and 182s in commercial fishing operations in the Alaskan bush. The company's STCs cover:

- PSK1101: Main Landing Gear Kit (Cessna 170, 180, 185, L-19)
- PPA1201: Inboard Landing Gear Attach Angle (Cessna 170, 180, 185)
- PPA1301-1/-2: Outboard Gear Box Brackets (Cessna 170, 180, 185)
- PPA1401: Rudder-Elevator Hinge Bearing (Cessna 180, 182, 185, 206)

Steven Knopp passed away before the transaction was completed. His widow Norma Knopp expressed relief that the products would continue to be supported. From this perspective, the acquisition preserved valued products for owners of classic Cessna tailwheel aircraft that might otherwise have been orphaned.

The concern, however, is that these STCs now vest exclusively in a PE-owned platform with investor return obligations. The pricing, availability, and future development direction of these products will now be governed by corporate profit motives rather than a founder's personal connection to the aviation community. There is no requirement that McFarlane/Victor Sierra maintain current pricing levels or continue to make all products available.

Section 3: Case Study — Alaska Gear Company (Airframes Alaska)

3.1 Overview

Alaska Gear Company (formerly Airframes Alaska) represents a cautionary example of how organic, founder-led growth in the GA aftermarket can ultimately feed the same consolidation pipeline as PE-backed roll-ups. Originally founded at Birchwood Airport in Palmer, Alaska as a licensed manufacturer of Piper PA-18 Super Cub fuselages, the company grew into a leading supplier of bush aircraft components — products designed specifically for backcountry, off-airport, and wilderness operations. Under founder and CEO Sean McLaughlin, Alaska Gear Company earned a strong reputation within the Alaska aviation community for preserving and expanding access to specialized bush aircraft hardware that larger commercial suppliers had little incentive to serve.

In 2023, the company rebranded from Airframes Alaska to Alaska Gear Company to reflect an expanded product line extending beyond pure aviation components into outdoor gear, wilderness equipment, and lifestyle products serving hunters, guides, and backcountry travelers.

3.2 Product Lines and Acquisitions

Alaska Gear Company has assembled its product portfolio through a combination of original development and strategic acquisitions:

- Alaskan Bushwheels (tundra tires): A flagship product enabling aircraft to land on remote beaches, gravel bars, tundra, and unimproved surfaces. These oversized, low-pressure tires have become near-universal equipment on Alaska bush planes and are increasingly popular in backcountry aviation nationwide.
- Reeve Air Motive brand: Acquired from the historic Anchorage aviation parts dealer (a landmark at Merrill Field since 1950), preserving access to legacy aircraft hardware.
- Alaska Tent & Tarp: Brings tenting, shelter, and sled manufacturing capabilities into the portfolio.
- Northern Sled Works: Freight sleds, gun boots, and wilderness gear — reflecting the company's expansion beyond aviation.
- PA-18 fuselage manufacturing, wing ribs, tail feathers: Core aviation fabrication capabilities for the Super Cub, a centerpiece of Alaskan bush aviation.
- ABI Wheel and Brake systems: Proprietary wheel and brake assemblies for bush aircraft applications.
- STCs including Cessna Tri-Gear Backcountry Kit and Trimmer Tri-Pacer Conversion: Proprietary modification approvals for specific bush aircraft applications.

3.3 Acquisition by McFarlane and subsequent sale to Transdigm

Alaska Gear Company was acquired by McFarlane Aviation in a transaction McLaughlin entered willingly, understanding it as a continuation of the company's growth under new ownership. What McLaughlin did not know at the time of the sale was that McFarlane had already arranged a downstream transaction to sell Alaska Gear Company to TransDigm Group. That sale has since closed.

The implications are significant. TransDigm's business model — acquiring niche aerospace component manufacturers, reducing competition, and extracting pricing power from captive markets — is well-documented and has drawn scrutiny from the Department of Defense, Congress, and aviation industry groups. Alaska Gear Company's product lines, particularly Alaskan Bushwheels and PA-18 structural components, now sit inside that pricing architecture. For the bush aviation community, where parts availability and affordability have direct operational and safety consequences in remote environments, this represents a meaningful change in the risk profile of the supply chain.

It is worth noting that Alaska Gear Company's prior co-marketing of McFarlane Aviation hardware suggested a distribution relationship rather than direct competition — a relationship that in hindsight may have provided McFarlane with significant visibility into Alaska Gear Company's operations, customer base, and strategic value prior to acquisition.

3.4 Concerns in the Bush Aviation Niche

The bush and backcountry aviation segment presents unique competition concerns. Aircraft operating in this context — Super Cubs, Cessna 180/185s, Maules, Beavers — serve remote communities where part availability and lead times have direct safety implications. A pilot grounded by an unavailable or unaffordable Bushwheel assembly, landing gear strut, or lift strut in a remote Alaska village faces consequences with no commercial aviation analogue.

The concentration of specialized bush aviation components across a small number of suppliers — now including TransDigm via Alaska Gear Company — raises legitimate questions about long-term parts availability, pricing trajectory, and the risk of low-volume product line discontinuation driven by return-on-investment logic incompatible with the realities of remote Alaska operations.

Section 4: Industry Consolidation Map and Market Structure

4.1 The Victor Sierra / Vance Street Capital Platform

The following diagram represents the corporate structure and acquisition flow of the Victor Sierra Aviation Holdings platform as of early 2026:

VANCE STREET CAPITAL (Private Equity — Los Angeles, CA)
Fund III — GA Aftermarket Platform Investment

↓

VICTOR SIERRA AVIATION HOLDINGS LLC
(f/k/a VS Aviation — formed October 2021)

↓↓↓ Portfolio Companies ↓↓↓

McFarlane Aviation (Platform — Est. 1970)	Tempest Aero Group (Platform — Est. ~2000s)
Core Products: 3,000+ airframe PMAs (cables, rails, hardware) Cessna, Piper, Grumman, Beechcraft, Ag-Cat **Acquisitions Under McFarlane:** • Airforms (baffles, Caravan parts) — Jun 2022 • Great Planes Fuel Metering (MRO) — 2023 • PMA Products (bearings, seals) — 2024 • P. Ponk Aviation STCs (4 STCs) — Nov 2025 • South Seas Ventures PMAs (Beechcraft) — Dec 2025	**Core Products:** Ignition components (Champion-competitive) Oil and air filters (Lycoming/Continental) Pneumatic components, fuel components **Platform Additions (VS Level):** • Aviation Products Systems — Aug 2024 (Wheel/brake, hose kits) *Av8, CJ Aviation, Flight-Resource (MT Propellers, fuel/hydraulic pumps)*

4.2 The Broader Market Landscape

Victor Sierra is not operating in a vacuum. Several other significant players shape the competitive environment:

Company	Market Focus	Notes on Consolidation / Competition
HEICO Corporation	Commercial aviation PMA (global)	Serial acquirer with 35+ acquisitions; $3.86B revenue (FY2024); acquired Wencor for $2.05B in 2023. Focused on commercial aviation, not primarily light GA.
Precision Castparts / TransDigm	Aerospace components	Large aerospace roll-ups with some GA exposure. TransDigm in particular has faced congressional scrutiny for monopoly pricing on defense parts.
Lycoming / Continental (General Aviation Manufacturers)	OEM engine parts	Original manufacturers compete with PMA suppliers on engine parts. Actively defend OEM brand; some contract structures discourage PMA use.

Champion Aerospace (now part of Knapp Automotive)	Ignition components	Direct competitor to Tempest Aero Group in aviation spark plugs and magnetos.
Alaska Gear Company	Bush aviation niche (light GA)	Independent, majority owner-operated. Comprehensive bush aviation parts from tundra tires to fuselages. Distributes McFarlane parts.
Independent PMA Manufacturers (100s)	Various niche segments	Many small, founder-owned businesses holding 1-50 PMA approvals for specific parts. Collectively represent a diverse ecosystem but are individually vulnerable to acquisition or exit.
Cessna / Textron Aviation (OEM)	Legacy aircraft OEM parts	Supports current production aircraft. Parts for legacy aircraft (pre-1985) are often expensive or discontinued.

Section 5: Regulatory and Legal Analysis

5.1 The Structural Monopoly Problem in STC Ownership

The FAA's STC system, designed to enable innovation and aircraft modifications by third parties, inadvertently creates structural monopoly conditions when STCs become concentrated in the hands of a small number of entities. Consider the following logic:

- An STC grants its holder exclusive legal authority to approve and produce modifications to a specific aircraft configuration.
- Only the STC holder (or a licensee explicitly authorized by the holder) can legally manufacture and sell the modification kit.
- There is no legal mechanism compelling an STC holder to license their technology to competitors at any price.
- Obtaining a competing STC for the same modification requires a complete independent engineering program, FAA engagement, and potentially years of delay — a prohibitive barrier for any but well-capitalized entities.
- When an STC-based product is the only approved solution to an aircraft airworthiness or performance need, the STC holder exercises pure monopoly pricing power over that need.

The concentration of STC ownership in PE-backed platforms amplifies these concerns because PE investment mandates typically require return optimization over a defined investment horizon (usually 5-7 years). Pricing strategies that maximize short-term revenue — including price increases on existing STC products — are structurally incentivized even if they conflict with the long-term interests of the GA community.

5.2 PMA Consolidation and the Dilution of Competition

The PMA system is structurally more competitive than the STC system: multiple parties can independently obtain PMAs for the same replacement part. This multi-vendor potential is the key mechanism by which PMA competition theoretically constrains OEM pricing power.

However, when a single entity acquires multiple PMA holders for the same product categories — as Victor Sierra has done across landing gear components, bearings, bushings, and fuel system parts — the number of independent competitive voices in the market decreases even if the number of PMA approvals does not. Pricing decisions that would previously have required competitive bidding among independent manufacturers now occur within a single corporate P&L.

Furthermore, platform consolidation creates distribution network advantages. When McFarlane, the dominant parts distributor for light GA, also manufactures the competing PMA parts, independent PMA manufacturers face both a competitive and distribution disadvantage. McFarlane's own data indicates it distributes products from other manufacturers through its catalog — but as it acquires more of those manufacturers, the incentive to promote non-McFarlane alternatives diminishes.

5.3 Antitrust Considerations

Standard antitrust analysis under Sections 1 and 2 of the Sherman Act focuses on market definition and market power. The relevant markets here are narrow but important:

- Each specific PMA part number potentially constitutes a separate product market — the replacement Cessna seat roller bearing is not a substitute for the replacement landing

gear attach angle. This granular market definition makes conventional antitrust analysis difficult.

- STC-specific modifications may each constitute a distinct market for the purposes of monopoly analysis.
- The aggregation of hundreds of such narrow markets into a single corporate entity may not trigger antitrust review even if the cumulative effect is significant market concentration in the light GA aftermarket as a whole.

Historical precedent for antitrust scrutiny in aviation aftermarkets does exist. The case of Mellon v. Cessna Aircraft (7 F.Supp.2d 1183, D.Kan. 1998) involved allegations that Cessna had used its service center network to restrain competition from third-party STC modifications, including refusing warranty and service support for aircraft with non-Cessna-approved STCs. The court's analysis confirmed that STC-based markets can be cognizable relevant markets under antitrust law.

TransDigm Group, a commercial aerospace roll-up with a business model explicitly centered on acquiring sole-source aerospace components, has faced congressional scrutiny (including a 2019 House Armed Services Committee investigation) for imposing excessive price increases on defense contractors for parts with no competitive alternatives. While TransDigm primarily serves military and commercial markets rather than light GA, the structural parallels are instructive for policymakers.

5.4 FAA Approval Timelines as a Barrier to Competition

A recurring industry complaint is that the FAA's underfunded approval process for new PMAs and STCs creates a de facto barrier to competitive entry. Industry participants have noted that the FAA has repeatedly signaled that STC and PMA approvals are not a priority, and that companies should expect increasingly long wait times for new approvals.

This creates an asymmetry: established PMA holders with existing approvals hold a regulatory moat while new entrants face years of investment before generating revenue. In the context of consolidation, this means that acquisitions of existing PMA companies are more attractive to investors than creating new ones from scratch — a dynamic that concentrates ownership further.

Section 6: Economic Impact Assessment

6.1 Impact on Aircraft Owners

The most direct economic impact of GA aftermarket consolidation falls on aircraft owners — individuals and businesses who must pay for parts to keep their aircraft airworthy. The following considerations are relevant:

Cost of Ownership

General aviation aircraft maintenance costs are already a primary driver of reduced pilot participation and fleet attrition. The Aircraft Owners and Pilots Association and other industry groups have documented that the annual cost of owning and maintaining a typical GA aircraft has increased substantially over the past decade, with parts costs being a significant component. If consolidation leads to higher PMA parts pricing (through elimination of competitive alternatives) or reduces availability of specific parts, the cost burden falls entirely on individual aircraft owners who typically cannot pass these costs on to customers. One unintended consequence of higher prices is “pencil-whipping” paperwork – aircraft owners will look for the most inexpensive A&P/ IA and those mechanics like to churn out work just as aircraft owners want to keep flying their aircraft. Aircraft owners may forego the certified part to do their repair and use an experimental part or may forego the maintenance entirely due to cost of parts. Now, cost isn’t an excuse for compromising safety, but it is a real outcome that’s been driven by climbing prices and the stove-piped STC and FAA-PMA process.

Legacy Aircraft Viability

For owners of older Cessna, Piper, and Beechcraft aircraft — the backbone of the general aviation fleet — the availability of affordable PMA parts is essential to economic viability. An aircraft whose annual maintenance cost reaches $15,000–$25,000 per year, up from $8,000–$12,000 a decade ago, may be grounded or sold at distressed prices, contributing to fleet attrition. Reductions in fleet size reduce demand for flight instruction, fueling, maintenance, and ultimately pilot training.

Pricing Transparency Concerns

Unlike commercial aviation, where large airlines have procurement departments and industry associations to negotiate parts pricing, individual GA aircraft owners typically purchase parts at retail prices with no negotiating leverage. Post-acquisition pricing changes are difficult to track systematically because list prices are not always publicly available and historical pricing data is dispersed across maintenance records.

Community Concern: Aviation community forums (particularly those dedicated to Cessna 170, 180, and 182 owners, as well as Beechcraft Bonanza communities) contain anecdotal reports of pricing changes following acquisitions. This anecdotal evidence is difficult to quantify but represents a meaningful signal of owner concern. A systematic study of pre- and post-acquisition pricing for affected PMA and STC products would provide important empirical evidence.

6.2 Impact on Maintenance Shops

Fixed Base Operators (FBOs) and independent aviation maintenance shops (Certificated Repair Stations under 14 CFR Part 145) are directly affected by parts availability and pricing dynamics.

- Reduced supplier diversity means fewer alternatives when a specific part is backordered or unavailable, increasing aircraft downtime.

- A consolidated supplier with broad catalog coverage may offer favorable pricing for high-volume shops that purchase across multiple product lines — potentially benefiting large FBOs while disadvantaging small independent shops.
- Maintenance shops that relied on personal relationships with founder-led PMA companies for technical support may find those relationships altered after acquisition by a corporate platform.
- Single-source supply chains for specific aircraft types create scheduling risk: if a major supplier experiences production or distribution disruptions, multiple aircraft could face concurrent delays.

6.3 Impact on Backcountry and Remote Aviation

The backcountry and bush aviation communities face disproportionate economic exposure to parts supply disruptions. Aircraft operating in remote areas — particularly in Alaska, Montana, Idaho, and similar regions — depend on specific, often niche components (Bushwheels, PA-18 fuselage parts, tailspring systems, tundra landing gear) that are produced by a small number of specialized manufacturers.

For communities in rural Alaska where small aircraft serve as primary transportation — connecting villages to medical care, fuel, and supplies — parts availability is not merely an economic issue but potentially a public safety concern. A disruption in the supply of a critical landing gear component could ground the sole aircraft serving a remote community during winter conditions.

The bush aviation aftermarket is currently served by Alaska Gear Company (the dominant tundra tire and PA-18 components supplier) and, increasingly, Victor Sierra for landing gear and airframe PMAs covering the same aircraft types. The concentration of supply among these two entities warrants monitoring.

6.4 Impact on Pilot Training and GA Participation

The FAA has documented a long-term decline in active pilot certificates in the United States. While this decline has multiple causes — including the high cost of flight training, generational shifts in leisure activity preferences, and reduced military pilot pipelines — the cost of aircraft ownership is a contributing factor.

If consolidation results in higher parts prices or reduced parts availability, the effect on the training fleet could be significant. Training aircraft (Cessna 172s, Pipers, Diamond DA40s) are among the highest-utilization aircraft in the GA fleet and require frequent parts replacement. Increased maintenance costs reduce the profitability of flight schools, which may respond by reducing fleet size, increasing per-hour training rates, or closing.

Section 7: Policy Options and Recommendations

7.1 Regulatory Solutions

Option 1: FAA PMA Fast-Track Program for Orphaned or Concentrated Parts

Congress should direct the FAA to establish a fast-track approval pathway for PMA applicants seeking to manufacture parts that are either (a) sourced from a single manufacturer with no competing PMAs, or (b) formerly covered by an abandoned STC or PMA. This would reduce the barrier to competitive entry for the most economically significant single-source situations. The FAA's existing NextGen and MOSAIC regulatory reform efforts could provide a framework for this initiative.

Option 2: STC Compulsory Licensing Framework

Congress should explore whether a limited compulsory licensing mechanism for aviation STCs — analogous to compulsory licensing provisions in pharmaceutical or telecommunications law — would be legally and practically feasible. Under such a framework, an STC holder who has not commercialized a product for a defined period (e.g., three years), or whose pricing is determined to be economically unreasonable, could be required to license the STC technology to qualified manufacturers at a regulated rate. This would require careful design to avoid discouraging initial STC development investment. In addition to licensing, there could be a framework where the STC is treated like a patent, and

Option 3: Enhanced FAA Antitrust Coordination

The FAA should be directed, either by Congress or by executive order, to coordinate with the Department of Justice Antitrust Division and the Federal Trade Commission in reviewing proposed acquisitions of PMA manufacturers and STC holders that cross defined concentration thresholds. Currently, aviation aftermarket acquisitions receive no systematic antitrust scrutiny unless they trigger Hart-Scott-Rodino filing thresholds (generally $100+ million for small acquisitions). A lower reporting threshold for aviation aftermarket transactions involving critical single-source parts would enable earlier regulatory review.

Option 4: Mandatory Parts Availability Commitments Post-Acquisition

The FAA should consider regulatory guidance or rule-making requiring acquirers of STC portfolios to provide minimum continuity commitments: maintaining pricing within defined bands of pre-acquisition levels for a period of years, and maintaining product availability for defined periods. This would parallel the "conditions" that antitrust regulators sometimes impose on mergers in other industries.

7.2 Market Solutions

Option 5: AOPA-Backed Cooperative PMA Development Initiative

The Aircraft Owners and Pilots Association, with its over 300,000 members representing an enormous aggregate purchasing power, is well-positioned to sponsor a cooperative PMA development initiative. AOPA could directly fund or co-fund the engineering and FAA approval costs for new PMA parts in product categories where single-source concentration is most acute. The resulting PMAs could be licensed to multiple manufacturers on non-exclusive terms, ensuring long-term competitive supply.

Option 6: Open-Source STC Initiative

A non-profit organization, potentially co-sponsored by AOPA, EAA (Experimental Aircraft Association), and other aviation stakeholders, could pursue the development of STCs with explicitly open licensing terms — making the modification data available to any qualified manufacturer who meets quality standards. This model would require significant upfront investment but could permanently eliminate single-source dependencies for covered modification types. The EAA's existing DER (Designated Engineering Representative) network and its familiarity with FAA certification processes make it a natural partner.

Option 7: Aircraft Type Club PMA Programs

Type clubs for specific aircraft models (Cessna Pilots Association, Piper Owner Society, American Bonanza Society, etc.) often maintain deep technical expertise and community connections that no commercial entity can replicate. These organizations could be supported with grants or reduced FAA fee structures to develop and hold PMAs for critical parts specific to their aircraft type, with licensing arrangements that ensure multiple manufacturers can produce the approved parts.

7.3 Legislative Concepts

Option 8: General Aviation Aftermarket Competition Act

Congress could introduce legislation specifically addressing competition concerns in the GA aftermarket. Key provisions could include: (a) a GA-specific antitrust reporting requirement for aftermarket acquisitions; (b) directed funding for FAA PMA fast-track programs for single-source parts; (c) consumer protection provisions requiring price transparency for GA parts; and (d) grants for non-profit or cooperative PMA and STC development initiatives.

Option 9: Incentive Structure for Independent STC Development

The current FAA fee structure and approval timeline effectively penalize small independent STC developers — the innovators who have historically created most of the modification ecosystem for legacy aircraft. Tax incentives, reduced FAA fees for small STC applicants, or expedited review for modifications covering aircraft with no OEM support could help sustain independent development as a counterweight to consolidation.

Option 10: Succession Planning Grant Program

A targeted grant program — perhaps administered by the FAA or through an aviation innovation fund — could provide transition funding for STC and PMA holders who wish to transfer their intellectual property to non-profit or cooperative ownership rather than to commercial acquirers. This would create a "public option" succession path that preserves the community mission of legacy parts development without relying on commercial acquirers.

Option 12: STC Royalty Licensing and Compulsory Production Rights

The current STC framework grants the approval holder exclusive control over who may produce parts or modifications under that approval. In practice, this functions as a perpetual monopoly — one that becomes increasingly problematic when the original STC holder is acquired by a consolidator whose incentives favor price extraction over broad access. Unlike a patent, which expires and returns the invention to the public domain, an STC faces no equivalent sunset. A single acquisition can permanently remove a critical bush aviation modification from competitive production.

This policy option proposes that AOPA advocate for FAA rulemaking exploration of a compulsory STC licensing framework modeled loosely on patent royalty principles. Under such

a framework, any FAA-certificated manufacturer meeting defined quality and production standards could apply to produce parts or modifications under an existing STC, subject to a royalty paid to the original approval holder. The royalty would compensate the developer for their certification investment while eliminating the exclusivity that currently enables post-acquisition price extraction.

The core policy logic is straightforward: the original STC developer deserves to recoup their investment and earn a return on their intellectual and engineering work. What they should not retain indefinitely — particularly following acquisition by a better-capitalized entity — is the ability to prevent anyone else from producing the same approved modification. Compulsory licensing preserves the reward while dismantling the bottleneck.

Several implementation questions remain unresolved and would require further development by AOPA's policy and legal staff:

- **Royalty rate-setting**: Whether rates should be negotiated privately, set by formula, or adjudicated through an administrative process analogous to copyright compulsory licensing under 17 U.S.C. § 115
- **Eligibility thresholds**: Minimum production standards, quality system requirements, and FAA oversight mechanisms for compulsory licensees
- **Trigger conditions**: Whether compulsory licensing should apply universally or only upon defined triggering events — such as acquisition by an entity above a defined revenue threshold, price increases exceeding a defined percentage above inflation, or documented supply disruptions
- **Administrative home**: Whether the framework sits within FAA, is enforced through existing IP law, or requires new statutory authority

A complementary reform worth pairing with this proposal is an expedited approval pathway for minor STC amendments. Under the current framework, even engineering-straightforward improvements to an existing STC face the same procedural friction as a new approval — a barrier that discourages incremental innovation and further entrenches the original approval holder's position. An FAA fast-track process for minor amendments, analogous to the Part 21 minor change classification but with defined engineering sufficiency standards, would lower the barrier to improvement while maintaining airworthiness oversight.

This option is deliberately presented as a concept requiring further legal and regulatory development. The underlying market failure it addresses — perpetual exclusivity migrating into consolidator ownership with no public domain recourse — is well-documented in this report and represents a structural gap in the current STC framework that existing FAA policy does not adequately address.

Section 8: Conclusions and Recommended Priorities

The general aviation aftermarket is at a structural inflection point. The combination of a deeply aging fleet, PE investment capital seeking returns from regulatory moats, and an aging population of founder-led small manufacturers creates powerful consolidation dynamics. Left unaddressed, these dynamics could accelerate the decline of the light GA fleet and the communities — rural, remote, and backcountry — that depend on it.

At the same time, consolidation is not uniformly harmful. The acquisition of at-risk product lines from founders with no succession plans preserves products that might otherwise be lost. The infusion of professional management and capital into decades-old small manufacturers can improve quality, reliability, and distribution reach. The challenge for policymakers is to distinguish between consolidations that preserve and consolidations that harm — and to create structural conditions that encourage the former while limiting the latter.

Recommended Immediate Priorities for AOPA and Stakeholders

1.	Commission a systematic study of pre- and post-acquisition pricing for PMA and STC products acquired by VS Aviation / McFarlane / Transdigm since 2021. Empirical pricing data is essential for evidence-based advocacy.
2.	Engage the FAA on fast-track PMA and STC approval pathways for single-source parts. This is the highest-leverage regulatory intervention available and aligns with existing FAA modernization initiatives.
3.	Work with the FAA on innovative practices that will allow faster iteration, testing, and approval of STC and PMA parts to allow for more economically viable Research and Development in the General Aviation parts realm.
4.	Work with aircraft type clubs to inventory STC and PMA single-source dependencies for common aircraft types. This mapping exercise is prerequisite to targeted policy intervention.
5.	Monitor and publicly document VS Aviation / McFarlane acquisition activity on an ongoing basis. Maintaining transparency about consolidation pace is important for community awareness.
6.	Engage congressional staff on the need for aviation-specific antitrust reporting thresholds. The current Hart-Scott-Rodino thresholds are too high to capture most GA aftermarket transactions.
7.	Develop model STC succession planning documents for independent STC holders. Provide clear guidance on transfer mechanisms and encourage founders to designate successors or non-profit recipients before health events force reactive decisions.

The general aviation community has historically depended on a dispersed ecosystem of passionate, technically sophisticated small manufacturers to sustain the fleet. That ecosystem is being systematically consolidated into corporate platforms with fundamentally different incentive structures. The window to shape this transition — through proactive policy, cooperative alternatives, and advocacy — is now, before concentration becomes irreversible.

Appendix: Sources and Research Methodology

Primary Sources Reviewed

- Vance Street Capital acquisition announcements (PR Newswire, Oct 2021 – Aug 2024)
- Victor Sierra Aviation Holdings formation announcement (August 2024)
- McFarlane Aviation official acquisition announcements (mcfarlaneaviation.com, victor-sierra.com)
- P. Ponk Aviation acquisition announcement (Aviation Pros, General Aviation News, AVweb, November 2025)
- South Seas Ventures PMA acquisition announcement (General Aviation News, December 2025)
- Alaska Business Magazine — Airframes Alaska rebrand to Alaska Gear Company (October 2023)
- HEICO Corporation acquisition announcements and annual reports (2023–2025)
- FAA Supplemental Type Certificates documentation and Order 8110.120
- Aviation Maintenance Magazine — "STCs and PMAs in Aircraft Maintenance"
- IATA aerospace supply chain challenge reports (2025)
- Mellon v. Cessna Aircraft, 7 F.Supp.2d 1183 (D.Kan. 1998)

Methodological Notes

This report is based on publicly available information as of April 2026. Acquisition pricing and post-acquisition pricing changes for specific parts were not available in public sources and represent a key gap in the empirical evidence base. The report identifies this gap as a priority for follow-on research. Anecdotal community reporting of pricing changes, while noted, has not been independently verified and should be treated as directional rather than quantitative evidence.

The report does not assert that any specific acquisition was unlawful under existing antitrust law, nor does it allege that any specific company has engaged in anticompetitive conduct. The analysis focuses on structural conditions and potential risks rather than adjudicated violations.

End of Report — General Aviation Aftermarket Consolidation and Competition Analysis — April 2026