

Whistleblower's Death-Wish Sought to Avert Aviation Crisis

Engineer Saw Industry Problems & Mentioned 737 MAX, But Nobody Listened

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Residing on page seven of the Federal Aviation Administration's [October 1st, 2018 report to congress](#) is the summary of the findings of 2017 whistleblower complaint #EWB18510. The small block reads: "No violation of a regulation, order, or standard." The filer of that complaint, then 26-year-old **Brandon Nelson** of Santa Monica, CA received a "no findings letter" in mid January 2018. As a consequence, he was irate, agitated, and situationally depressed. In the ensuing weeks, he bequeathed thousands to charity, left some of his [notes neatly stacked on his desk](#), and proceeded to take his own life.

Nelson was an aerospace engineer, fired in October of 2017. His employer was Warren Buffett-led and owned **Berkshire Hathaway's biggest buy to-date** (a \$38 Billion 'take-private' deal in 2016): aerospace components giant **Precision Castparts Corp** ("PCC" or "PCP", the latter being its former ticker symbol).

His passing came one year (almost to the day) before the [crash of Ethiopian Airlines 302](#), the situation which prompted me to find his desk, those records, *and* the [sheet of paper sitting](#) at the top containing three bullets that read ([in big letters](#)) as follows:

"Warren Buffet, Chmn, Berkshire Hathaway"

"60 Minutes (CBS)"

"Congress → Sub-committee Chairs, on Aviation & Aerospace"

The gift of foresight, can only be recognized *in hindsight*. And an investigation has revealed that Nelson, much like Buffett, had the acute ability to see many things others cannot. In this case: an aviation crisis.

Of course, you're still presumably asking yourself, "who the heck is PCC"?!

The Workplace

Portland, Oregon-based PCC is America's largest aerospace components and parts producer—a *key player*. Their size is substantial, just prior to becoming part of the Berkshire Hathaway family, they were a member of the Fortune 500, and ranked 133rd on the S&P 500 Index. Interestingly, they even attained the status of America's most pollutive company, [according to](#) a University of Massachusetts study.

One [federal lawsuit filed just over three years ago](#), alleges securities violations by PCC and tells the story of how the Oracle of Omaha sealed the deal. This occurred at a time when PCC was having an unfamiliar year embodied by poor performance. They entered the red for the first time since the financial crisis of 2008. Between those years, they were immensely profitable and

acquired dozens of subsidiaries, including Permaswage--a company that makes parts for hydraulic systems. Nelson was employed at Permaswage's Gardena, California plant.

The [complaint states that](#), on July 9th, 2015, Buffet met with long-time PCC CEO, **Mark Donegan**, and offered \$235/share to buy *all* of PCC. The shareholders serving as plaintiffs further allege that Donegan pursued the deal to avoid his impending ouster by the PCC board.

The 737 MAX Crisis

The faulty parts Nelson scrutinized were hydraulic fittings produced by PCC, known as '[Permaswage Fasteners](#).' All present and former PCC employees confirmed, without a doubt, the parts Nelson scrutinized were indeed installed on Boeing's 737 MAX.

In a [2017 email](#) exchange with a confidential source that worked with Nelson (but has moved on from PCC as of this year), Nelson called the 737 MAX an "over-complex" airplane. He added that Boeing was "implementing software that had never been used, but not requiring extra training." He further expressed that risk existed because the today's airplanes face exposure to "all these pilots flying for the airlines and military outfits in Africa, or underdeveloped Asia, and South America."

The source confirmed Nelson was referring to [undertrained aviators](#). The pilot issue is one most accurately described by a recent [New York Times Magazine article](#). This piece was classified as "the finest aviation piece I've ever read," by a confidential source who works as a first officer on the 737 (MAX and NexGen) for Southwest Airlines. In addition, this source believed it to be a "mic drop" for which author and fellow FAA licensed pilot, **William Langewiesche**, "deserves an award."

The article entitled, "What Really Brought Down The 737 MAX," declared that some foreign pilots, "may never develop true airmanship no matter the length of their careers. The worst of them are intimidated by their airplanes and remain so until they retire or die."

Truth be told, the pilots of the two doomed MAX version of 737s ascended from the categorization of novice airmen to airline transport pilots, in a *very short* period of time. Thus, posing the question, how can an American company (Boeing) be so callously imputed when the *stateside* norm for pilots is polished-prowess in both the left, and right seat, of every FAA-regulated flight deck?

Nelson's lens, however, was principally focused on what would appear a second element of what Langewiesche calls "larger forces" liable for the 737 MAX crisis.

The Other "Larger Force"

The faulty Boeing software, referred to as 'MCAS', appears to have played a role in the crashes. As time has progressed, evidence continues to offer more theories of contributing factors. Langewiesche's account opined that "laying the blame on a poorly implemented system, even a complex one, made the accident relatively easy to understand and also provided for a material solution: fix the system. But the focus on a single shoddy component—as the news media and

government regulators have rushed to do—has obscured the larger forces that ultimately made these accidents possible."

Nelson's specific concern, was in fact, a "single shoddy component." The sentiment shared in the December 2017 email, however, is important because it recognized a greater systemic issue.

Nelson believed these parts were made poorly, and lethal if installed on an aircraft. When installed, according to Nelson's email, they would become part of a system of "over-complex airplanes intermixed with under-trained pilots." A potent cocktail that Nelson categorized as an "absolute disaster waiting to happen."

Nelson continued to *excitedly vociferate*, saying, "these guys abroad don't know what they're (doing) and they won't know what a (hydraulic) depressurization looks like, especially if it's resultant of a knee-jerk reaction."

A [second confidential source](#) who served with Nelson at PCC is also an experienced engineer. This source said, "in reality, they should be looking at the quality control systems of the aerospace industry as a whole. The source added that "the level of quality control is not what you'd expect...it's hard to even know what goes into the parts at the end of the day."

The Text Messages

I had the chance to thoroughly inspect the whistleblower's largely unscathed living space. The Nelson family also [allowed me to examine text messages](#) from the late engineer's android device.

One thread is between Nelson (a 2014 UCLA alum with a BS in aerospace engineering) and his brother **Justin Nelson**, 23, (a then-UC-Berkeley Junior, that has since graduated and is now living in San Francisco). The relevant texts were exchanged in the days just prior-to, and-after Nelson's termination. They reveal the termination occurred as alleged--amidst vocal manifestation of concern that various hydraulic fittings built by PCC-owned Permaswage, were not being made to the customer specs. The messages further suggest that harmful trade practices transpired and that something was amiss within PCC's culture.

In addition to the concern with PCC's paucities of production, Nelson also maintained that (at PCC), "The uppers don't care dude, and make [sic]every1[sic] be dishonest and just hide the wrong (expletive). hiding doesn't work [sic]Be str8[sic]."

He believed the failure of any of these parts would be "traceable" and was *determined* to remedy the dismissed problem.

Not A 'Suicidal Business' Anymore?

Nelson's Godfather, [Charles Sena](#) of Orange County, CA, like Buffett, *and* Nelson's father (**Allen Nelson**) holds an MBA from Columbia Business School. Brandon Nelson sought Sena's support in communicating his concerns to regulators or ombudsmen. Sena declared that Nelson feared a "systemic risk" existed in the aerospace sector. Sena remembered that Nelson was "*emphatic* that these parts could bring down an airplane."

In December 2017, Sena advised Nelson to express his concerns to Buffett, intimating that approaching the Berkshire leadership, as a supplement to the FAA complaint, may prove propitious.

However, in some cases, Buffett is either unaware or purposefully aloof of the nature of the firms Berkshire owns in aerospace. The Wall Street Journal's [Nicole Friedman reported](#) that Buffett, this year, claimed that Berkshire-owned FlightSafety International (a global company that provides aviation industry training) "mostly trains corporate pilots." Two confidential sources and 737 pilots (the aforementioned Southwest First Officer and one serving in the same position at United) both gasped at this, agreeing that almost *all* airline pilots spend time in FSI's simulators at some point or the other.

Ironically, in March 2019, the [formerly airline investment-avoidant](#) Buffett told CNBC that the airline industry "is a very competitive business, but I don't think it's a **suicidal business** anymore."

Culture in Peril

To further corroborate Nelson's culture concerns, we look at a [Bloomberg News article](#) and television [news report](#) both dated August 3, 2016. **Noah Buhayar** called Donegan: an "in your face" leader. Buhayar wrote that, "something more brutal is going on" at PCC and that "those who know the CEO best describe a manager who's highly effective but at times strains basic decency."

Buhayar even claimed, "one source says (Donegan) threatened to rip an employee's arm off, and stab him with the bloody stump." I have left messages for Donegan's office and on his cell, but haven't received return calls.

PCC's financial struggles were attributed in SEC records to flailing energy industry sales due to the crude oil bubble's 2014 burst. However, another pending federal claim suggests it was *actually* the loss of one of their (as [official reports filed by PCC with accounting watchdogs](#) call them) "indefinite-lived (customer) relationships."

That more [recent federal lawsuit](#), filed on August 8th, 2018 also names PCC as the defendant. The claim asserts this sales-drop was [attributable to a contract with Rolls Royce](#), that fell victim to a destocking by the engine manufacturer. In addition, the lawsuit contends that Donegan and staff attempted to downplay the Rolls Royce situation as "temporary." One Rolls Royce exec, [according to the complaint](#), allegedly reacted to PCC executives via email asking them: "*What the hell are you talking about?*"

The claim that this gully was "temporary," is *no longer* in question, according to *The Financial Times*' Sylvia Pfeifer, [in an article](#) published five months ago.

In reality, Precision financial struggles have not ended. Estimates derived from [PCC's 2015](#), and Berkshire's [2016-2018](#) filings with the U.S. Securities and Exchange Commission suggest pre-tax earnings have dwindled by double-digit percentages in 2016 and 2018, but remained level in 2017.

By the twelve month period ending in the [2nd quarter of 2019](#), they had *finally* increased revenues, year-over-year, by 1.2% to \$2.6 billion. One can argue, however, the uptick is thanks to **President Trump**, as opposed to Donegan, or Buffett. By their own proclamation, the boost came thanks to continued demand offset by *tariff expenses!*

If you add in the supporting cast (other players in Buffet's roughly \$65 billion in aerospace investment) such as FSI, [major stakes in four major U.S. airlines](#), **Axalta Coatings**, **Marmon Aerospace**, and **NetJets**, just to name a few; one would assume Berkshire would be *raking-in-the-cash!* However, Berkshire has seen a 6% decline in annual growth as of Q2 2019 (much of which [can admittedly be attributed to](#) their struggling **Kraft-Heintz** investment).

Poor performance and pressure to grow lends credit to an overarching hypothesis that the industry *has* met its 'theoretical' production limits.

Will the Regulators 'Mount Up?'

Nelson's texts declared that "these sorts of things don't just happen" when pointing his brother to [a Bloomberg article](#) that covered an emergency landing of an Air France Airbus A380. These oft-occurrences (which involve no accident reports) were exactly the collection of evidence that Nelson hoped would vindicate his resume, *and save lives*.

As for the results of the whistleblower grievance, The FAA examined three parts on the plant floor, and [my discussion with the FAA](#) and in their official commentary that followed didn't dispute my belief the inspection was performed *with advance notification* (as is standard).

They never examined a Permaswage fitting *actually installed* on an airplane.

Now under the microscope amidst the MAX crisis, allegations have surfaced that Nelson hasn't been alone in feeling underserved by the FAA. In July, *The New York Times* [called](#) FAA procedures a "broken regulatory process that has effectively neutered the oversight ability of the agency." On September 24, 2019, The Office of the Special Counsel in Washington yielded similar sentiment in a [scathing letter to the White House](#). I contacted the White House for comment on the letter, and have yet to hear back.

As for Berkshire's *massive*, ubiquitous stake in one industry, you'd think that less competition would invite antitrust regulators. *Well*, as a matter of fact, PCC [faced scrutiny from antitrust regulators](#) early-on in their 41-deal spree. PCC inked a settlement with antitrust regulators concerning the acquisition of Wyman-Gordon, *way back in 1999!*

According to the accompanying [press release](#), the Federal Trade Commission, stated, "It is vital to maintain vigorous competition in the market for these essential aerospace components." Since 1999, they've faced no comparable scrutiny.

Takeaways from Nelson's Story

Nelson was a smart young engineer. His younger brother Justin noted in an interview, "he taught himself everything, (he was) intellectually curious all the time."

Obviously, there's no proof the *widely-used* parts Nelson voiced concern with; were a contributing factor in either MAX crash, or any other, for that matter (yet). Like Langiewesche, he recognized a flailing system. Unlike many, he did recognize the MAX was vulnerable to that same system. Of course, we also cannot rule out that these parts played a role.

Although, in the case of Ethiopian 302, multiple eyewitnesses *do suggest smoke and/or flames billowed from the tail*. These accounts and conventional aviation expertise would likely credit that to hydraulics, *certainly not* the MCAS software. The MCAS (if powered-on) engages the horizontal stabilizer (non-hydraulic system controlled by a crank-wheel between the pilots' seats), the column (the well-known cockpit staple resembling a steering wheel) controls elevators and ailerons for more precise pitch and roll.

A sensor malfunction prompted that software to place the aircraft's horizontal stabilizer in a position resulting in a dive. However, the crew's first reaction (according to the black box, and preliminary report) was to quickly attempt to recover from the plunge by pulling back on the column. Similarly, Langiewesche reported that on Lion Air 610, the captain first reacted "by using his thumb switch to apply a burst of nose-up trim as he **hailed back on the control column** and returned the airplane to its climb." The pressure applied in both cases was, obviously, outside of flight parameters, and at a rapid-speed, at full power.

Furthermore, Langiewesche's piece stated, "if an **inattentive crew** allows a runaway trim to drop the nose too far below the horizon and the crew reacts with full up elevator, the nose will rise as certification standards require, but it may remain below the horizon for a period sufficient to allow the airspeed to continue to increase and bust right through the maximum speed, at which point recovery becomes impossible **if you don't lay into the electric trim.**"

So, the smoke (and media mirrors ignoring it), coalesced with the fact that the pilots didn't take the time to *reduce power and work the problem--says at the very least*, the chaotic response predicted by Nelson was likely present in the Ethiopian 302 cockpit.

What areas did Nelson miss, or, where was he *not* correct? Well, he does appear incorrect that any part failures would be easily "traceable" to PCC leadership or, perhaps even Berkshire. Most folks have no earthly idea who PCC is, while their customers, Boeing, Airbus, and engine producer General Electric, to name a few: *serve as household names*.

In the same March 2019 CNBC sit-down in which Buffett dismissed the airline industry as no longer being "suicidal," **he also said** (regarding the MAX crashes) that "Boeing, obviously has a lot of work to do, very promptly."

Meanwhile, PCC and Buffet's enormous aerospace bet are the largest of the 'larger force' that Brandon Nelson, literally, *died to expose*.