



AUSTRALIAN ASSOCIATION of RETIRED AIRLINE PILOTS and AVIATION PROFESSIONALS

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Issue 45 (April – June)

EDITORIAL

Apologies for again bombarding you with Boeing's woes. However, for newsletter editors, Boeing is just one of those companies that just continues to give.

One can't help recalling the immortal words of Sir Reginald Ansett when he spoke of his 'Old Boilers'. We wonder how he'd react to either or both of two articles later in the newsletter? One celebrating the passing of the world's longest serving Flight Attendant, Bette Nash and the other relating to the appointment of an ex-Flight Attendant as the CEO of Japan Airlines.

It's AGM time again. This means it's your opportunity to 'clean out' the committee or just take on one of the jobs of a committee member. All positions become vacant at the AGM so give some thought to how you'd like to contribute to the running of this august body of retired aviation professionals. Book the date: 12 July, 12h01, Italo Australian Club, 18 Fairway Drive, Clear Island Waters.

Included in the Valedictories is Bill Moore. Bill was not a member. However, many of you who flew with TAA or Air Niugini will remember him. I was directed to PPRuNe where I extracted the article, which was obviously written by an ex-Air Niugini pilot.

The same applies to John Regan. Once again, PPRuNe provided the information for the valedictory.

As editors, Lee and I are always looking for stories of our colleagues and, once again, we are hoping for contributions from members, in particular for those most recent 'expirees' listed below in the RIP section. Members' contributions are always preferable for us than relying on PPRuNe.

CHAIRMAN'S REPORT

The 2024 AGM is on Friday the 12th of July. Details have been sent via email. Please make the effort to catch up with the workings of your Association and join with members' friends and partners for lunch and a few drinks after.

A shame Bonza has become another airline fatality unfortunately not supported by the general public even though they serviced many of the old routes TAA and Ansett had in the 60's and 70's. At least there is a demand for pilots so they won't have to drive busses. I guess everyone wants cheap fares to the capital cities.

Looking forward to catching up at the AGM.

WELFARE REPORT

(Bob Allan)

I recently had a phone conversation with a friend and colleague of mine whom I've known since we were both in our twenties and were bright eyed and bushy tailed F/Os with Ansett in Melbourne. We both went offshore during the '89 pilot's dispute, in my case to Asia and in his it was the Pacific.

His flying career finished at the age of 58 when he took a position as a simulator instructor in Melbourne and after about 4 years of instructing, he had to retire as his sight was failing to such a degree that he was declared legally and totally blind around 2012.

Our conversation didn't really centre on our flying careers as he talked about how fortunate he was to still have his wife of 60 years who doted on him, particularly keeping a close eye on his diabetes which unfortunately was the cause of his blindness. He spoke lovingly of his offspring and the delight of being a great grand-father and how he's "read" over a thousand books which he can listen to through his hearing aids via wifi from his iPad program and not disturb his wife while they're in the lounge room of an evening "watching" TV. We laughed when he said to tell my wife that she doesn't have any wrinkles as he remembers her from the last time he saw her before he was totally blind.

When he inquired about my health, I was going to mention I had developed arthritis in my right-hand thumb joint about 3 years ago and now it was in my left-hand thumb as well, but somehow, I thought that was a bit like a 5-year-old complaining about a small splinter in his thumb, so I didn't bother. We spoke for a good 90 minutes and the bulk of our conversation was how well he felt and how satisfied and grateful he was with his lot.

Generally, when I call a colleague whom I envisage may be down on his luck, I try my best to cheer him up but after this conversation it was I that felt cheered up and very grateful with my lot in life, arthritic thumbs and all.

Fellows, this thing we call life is not a full dress rehearsal, it's the real deal and as we age we must try and squeeze every moment of it so, like my colleague, we can have satisfying memories of all the good times.

Your welfare committee is actually the "Welfare and Recruitment" committee and we feel as though we're dragging our feet with recruitment, so please give us a helping hand and try and recruit a reluctant colleague into our esteemed organisation.

NEW JOINERS

Mr Perry Matthews:

Perry had a long career in Air Traffic Management, which commenced in 1970 with the RAAF. From there he progressed to the chief of Air Traffic Services in PNG; then back to Australia as an air traffic management consultant. From there it was off to New Zealand with the Civil Aviation Authority there responsible for the complete gambit of regulatory functions relating to all aspects of civil aviation. He finished his career in 2021 working as a Specialist ATM consultant on behalf of the Pacific Aviation Safety Office. Perry and his wife June now reside on the Sunshine Coast.

RIP

Captain John Regan: 18 Aug 1931 - 1 November 2023

Captain Brian Kearney: Died 28 Mar 2024

Captain Ken (Fanjet) Farley: Died 16 April 24

Captain Ross Petrie: 29 Aug 1941 - 8 May 2024

Captain John (Blackjack) Norrish: 17 Aug 1937 - 10 May 2024

Captain Ross Cooper: Died 13 May 2024

Captain Cliff Kropp: 14 Oct 1927 - 18 May 2024

Captain Bill Moore: Died 18 June 2024

VALE

Captain John Regan: died 1 November 2023 aged 92 years at Bellingen NSW.

John was one of the true Territorians of the days of pre-independence in PNG, flying for Ansett MAL, later Ansett Airlines PNG and was Check & Training on the DC-3/C-47. He also introduced the DHC-4 Caribou to PNG operations.

As PNG approached Self Government in 1973, John was one of the few TAA and Ansett PNG pilots who made a lifechanging decision to stay on in PNG.

John was there on Day One, 1 November 1973, when the new National carrier Air Niugini launched officially. The aircraft was a newly repainted in Air Niugini colours former TAA F27, VH-TFJ and the inaugural flight departed Port Moresby at 06h00 for Lae, Rabaul, Kieta and back to Rabaul for a night stop before returning next day via Lae. (Editor's note: I was the FO on that flight which was also *my* inaugural airline flight!)

John, along with Capt. Dick Glassey, Capt. Bill Johns and myself (Ed. Note: the contributor writes under the pseudonym "**B747_4ever**" on PPRuNe so we are unable to credit the author) were the pioneers who in 1976 transitioned from the 20 tonne Dog Whistle F27 to the illustrious B707-320 'Simok Balus' when Qantas took on the task of introducing us Territorians to the magical world of International Aviation. John, who could fly the pants off any Qantas Senior Check Captain, survived the ordeal and went on to complete a most impressive career with Air Niugini, which had expanded all over Australia, Oceania and the Middle East in a few short years.

He eventually retired but his love of PNG and the people remained and at the age of 78 he returned to Port Moresby to take up an appointment flying the Dash 8-100 series for Airlines PNG. No mean feat especially considering his advanced age at the time.

We that remain affectionally salute this very unique and much-loved PNG Veteran and aviator.

It is truly ironic that exactly 50 years to the day after the formation of Air Niugini, we lost a true legend.

And this too, from “**Joofhart**” on PPRuNe.

I too am one of the dwindling ranks of those who were in PNG at the time of the formation of Air Niugini. I joined from Talair (then Territory Airlines) a few months later and had my first introduction to the even-then-legendary Captain John Regan.

When I met him, he was a very senior check and training captain. He was amiable, approachable, and ever-willing to give good advice to budding airline pilots. He did not stand fools lightly and if he thought that you needed a good kick in the arse, he was willing to oblige. Having been on the receiving end of a few good kicks myself, I can honestly say that the discipline along with the advice that came with them stood me in good stead for a relatively long career in ANG. Despite his legendary status and fearsome reputation, he was always great company; partaking of a few gargles in the aero club after work. Even over a few beers, we all picked up many pearls of wisdom dropped lightly during conversations. I remember with great fondness being one of a hapless duo of junior first officers who took a base check on the F27 one afternoon, during which I'm embarrassed to have to say that neither of us was a shining example of the best that ANG had to offer.

After mercilessly tearing strips off both of us and leaving us fearing for our futures in the airline, he brought the briefing and paperwork to an end by saying, "Right chaps, let's go and have a few gargles". After that, we retired with our tails between our legs and followed him to the aero club. The transformation there was nothing short of miraculous. Within a short while he had us both rolling around with laughter while he regaled us with events that had transpired during the base checks and yet again pointing out in the nicest possible way how badly we had performed and how much further we had to go to meet his standards.

Forever thereafter I looked forward to encounters with John both at work and after work because I knew that he never held grudges or set out deliberately to shatter any of our dreams. He was always available to give advice on ways to improve and good practical steps that should be taken.

John's dedication to aviation was demonstrated ably by the extra time that he stayed on after most of us had folded our wings and put the aircraft in the hangar for the last time. Even after I left ANG, I once had occasion to call on him from across the world for assistance with sorting out my PNG licence and getting it recognised by the authorities in the new country that I was starting to fly for. He put in considerable effort on my behalf, simply because I asked him to and for absolutely no benefit to him. The world has indeed lost a great aviator and a great bloke.

And finally, on PPRuNe, from “**zlin77**”.

When John joined East-West Airlines about 1983 I had the pleasure of doing his training in the NSW Air Ambulance. To go from a multi-crew 707 operation to a single pilot G.A. position was no mean feat. John applied himself to the task with 100% professionalism to achieve the right result.

Captain Ken (Fanjet) Farley: died 16 April 24 after a long battle with Alzheimer's.

Ken began flying at The Royal Aero Club, Bankstown, joined Ansett and was based Melbourne. Post '89 he flew with Singapore Airlines until retirement.

Ken got the nickname "Fan Jet" as when Ansett Airlines first bought the DC-9, the assigned pilots were sent to the Douglas factory in the USA for the ground school and simulator. When he returned, he was always on and on about the new style "Fan Jet" engines fitted to the new wide-bodied aircraft.

Captain Ross Cooper: died 13 May 2024 after a battle with cancer.

Ross was ex-Ansett and Virgin and was the son of Captain Ken Cooper (of the Winton Viscount crash) and was sponsored by the Ansett pilot group at the time to get his pilot's licence. He worked at the RQAC before joining Ansett in 1978. Ross was one of the small group taken back into Ansett post-dispute. When Ansett finally fell over, he joined Virgin and retired in 2015.

Captain Bill Moore: Died 18 June 2024

A long-time distinguished aviator of the Territory of Papua New Guinea and later PNG, made his final landing at home in Brisbane. Bill had amassed some 20,000 plus flying hours in his unblemished career.

Bill's aviation career goes back to the early 1970's when he was flying for Aerial Tours out of Port Moresby. Later he was a formation pilot with Macair when formed by Graham Syphers and Dave Maclure and in 1973 was recruited by TAA for their TPNG Division as a DC-3 Captain. Around that time, he also acted as a Flight Instructor at the South Pacific Aero Club at Jackson's Airport, Port Moresby. As a DC-3 Captain, he moved to Air Niugini when it was launched in late 1973.

One of Bill's most memorable flights was in a DC-3 which he was assigned to ferry from Lae all the way to Tullamarine Airport, Melbourne. The aircraft was of historical significance in that it was the very first TAA DC-3 to go on line and was planned to be a company *Flag Waver* for future promotional events.

He was paired with a very senior TAA management captain. All went well until the arrival into Melbourne. That was when the TAA 'Heavy' decided that tradition meant that he, the 'TAA Heavy', would carry out the landing. He announced that he would be carrying out a tail down 'Wheeler'. However, he had not taken into account the fact that it was night time, and that the gusty south westerly wind was accompanied by rain showers. It soon prevailed that the landing became totally out of control as it started into a well-defined Ground Loop! "Taking Over" was Bill's immediate response as he managed to get the beast under control from the right seat, thus avoiding major embarrassment to TAA and especially to their designated senior 'Heavy'.

Bill soon was promoted to the Air Niugini B707-320. Eventually the 707 fleet was replaced by an ex-TAA A300-B4 which Bill flew until he moved to Singapore Airlines to fly the A340-200 before retiring to settle back in Brisbane, initially at Newport Waters and later at Mango Hill where he arranged a number of Air Niugini reunions.

The world's longest serving flight attendant has passed away at the age of 88. **Bette Nash** flew for 65 years with American Airlines and retired at the age of 86. Bette was a legend at American Airlines and an inspiration to generations of flight attendants.



BOEING AND THE DARK AGE OF AMERICAN MANUFACTURING

Somewhere along the line, the plane maker lost interest in making its own planes. Can it rediscover its engineering soul?

By Jerry Useem

(Jerry Useem is a contributing writer at *The Atlantic* and has covered business and economics for *The New York Times*, *Fortune*, and other publications.)

The sight of Bill Boeing was a familiar one on the factory floor. His office was in the building next to the converted boatyard where workers lathed the wood, sewed the fabric wings, and fixed the control wires of the Boeing Model C airplane. there is no authority except facts. facts are obtained by accurate observation read a plaque affixed outside the door. And what could need closer observation than the process of his aircraft being built? One day in 1916, Boeing spotted an imperfectly cut wing rib, dropped it to the floor, and slowly stomped it to bits. "I, for one, will close up shop rather than send out work of this kind," he declared.

When David Calhoun, the soon-to-be-lame-duck CEO of the company Boeing founded, made a rare appearance on the shop floor in Seattle one day this past January, circumstances were decidedly different. Firmly a member of the CEO class, schooled at the knee of General Electric's Jack Welch, Calhoun had not strolled over from next door but flown some 2,300 miles from Boeing's headquarters in Arlington, Virginia. And he was not there to observe slipshod work before it found its way into the air—it already had.

A few weeks earlier, the door of a Boeing 737 had fallen out mid-flight. In the days following his visit, Calhoun's office admitted that it still didn't know quite what had gone wrong, because it didn't know how the plane had been put together in the first place. The door's restraining bolts had either been screwed in wrong, or not at all. Boeing couldn't say, because, as it told astonished regulators, the company had "no records of the work being performed."

The two scenes tell us the peculiar story of a plane maker that, over 25 years, slowly but very deliberately extracted itself from the business of making planes. For nearly 40 years the company built the 737 fuselage itself in the same plant that turned out its B-29 and B-52 bombers. In 2005 it sold this facility to a private-investment firm, keeping the axle grease at arm's length and notionally shifting risk, capital costs, and labour woes off its books onto its "supplier." *Offloading*, Boeing called it. Meanwhile the tail, landing gear, flight controls, and other essentials were outsourced to factories around the world owned by others, and shipped to Boeing for final assembly, turning the company that created the Jet Age into something akin to a glorified gluer-together of precast model-airplane kits.

Boeing's latest screwups vividly dramatize a point often missed in laments of America's manufacturing decline: that when global economic forces carried off some U.S. manufacturers for good, even the ones that stuck around lost interest in actually making stuff. The past 30 years may well be remembered as a dark age of U.S. manufacturing. Boeing's decline illustrates everything that went wrong to bring us here. Fortunately, it also offers a lesson in how to get back out.

In Bill Boeing's day, the word *manufactory* had cachet. You could bank at the Manufacturers Trust. Philadelphia socialites golfed at the Manufacturers' Club. Plans for the newly consecrated Harvard Business School called for a working factory on campus. The business heroes of the day—Ford, Edison, Firestone—had risen from the shop floor. There, they had pioneered an entirely new way of making things. The American system of production—featuring interchangeable parts, specialized machine tools, moving assembly lines—was a huge leap beyond European methods of craft production. And it produced lopsided margins of victory for the likes of Ford, GM, and Boeing. To coordinate these complex new systems, two new occupations arose: the industrial engineer, who spoke the language of the shop floor, and the professional financial manager, who spoke the language of accounting.

At first the engineers held sway. In a 1930 article for *Aviation News*, a Boeing engineer explained how the company's inspectors "continually supervise the fabrication of the many thousands of parts entering into the assemblage of a single plane." Philip Johnson, an engineer, succeeded Bill Boeing as CEO; he then passed the company to yet another engineer, Clairmont Egtved, who not only managed production of the B-17 bomber from the executive suite, but personally helped design it.

After the Second World War, America enjoyed three decades of dominance by sticking with methods it had used to win it. At the same time, a successor was developing, largely unnoticed, amid the scarcities of defeated Japan. The upstart auto executive Eiji Toyoda had visited Ford's works and found that, however much he admired the systems, they couldn't be replicated in Japan. He couldn't afford, for instance, the hundreds of machine tools specialized to punch out exactly one part at the touch of a button. Although his employees would have to make do with a few general-purpose stamping presses, he gave these skilled workers immense freedom to find the most efficient way to run them. The end result turned out to be radical: Costs fell and errors dropped in a renewable cycle of improvement, or *kaizen*.

What emerged was a different conception of the corporation. If the managerial bureaucrats in the other departments were to earn their keep, they needed a thorough understanding of the shop floor,

or *gemba* (roughly “place of making value”). The so-called Gemba Walk required their routine presence at each step until they could comprehend the assembly of the whole. Otherwise, they risked becoming *muda*—waste.

When the wave of Japanese competition finally crashed on corporate America, those best equipped to understand it—the engineers—were no longer in charge. American boardrooms had been handed over to the finance people. And they were hypnotized by the new doctrine of shareholder value, which provided a rationale for their ascendance but little incentive for pursuing long-term improvements or sustainable approaches to cost control. Their pay packages rewarded short-term spikes in stock price. There were lots of ways to produce those. Which brings us to the hinge point of 1990, when a trio of MIT researchers published *The Machine That Changed the World*, which both named the Japanese system - “lean production” - and urged corporate America to learn from it.

Just then, the Japanese economy crashed, easing the pressure on U.S. firms. In the years that followed, American manufacturers instead doubled down on outsourcing, offshoring, and financial engineering. This round of wounds was self-inflicted. Already infused with a stench of decay, manufacturing was written off as yesterday’s activity.

At GE, which produced three of Boeing’s last four CEOs, manufacturing came to be seen as “grunt work,” as the former GE executive David Cote recently told *Fortune*’s Shawn Tully. Motorola - founded as Galvin Manufacturing and famed for its religious focus on quality - lost its lead in mobile-phone making after it leaned into software and services. Intel’s bunny-suited fab workers were the face of high-tech manufacturing prowess until the company ceded hardware leadership to Asian rivals. “Having once pioneered the development of this extraordinary technology,” the current Intel CEO, Pat Gelsinger, wrote recently, “we now find ourselves at the mercy of the most fragile global supply chain in the world.”

Phil Condit, the talented engineer who had overseen design of the hugely successful 777, was atop Boeing when I visited the company in late 2000. He was no stranger to the shop floor. Traversing Boeing’s Everett plant in a golf cart, he pointed out the horizontal tail fin stretching above us. Hard to believe it was larger than the 737’s *wing*, he marvelled. Waiting back in his office - still located on the bank of the Duwamish River but greatly swollen by the recent merger with McDonnell Douglas - was a different sort of glee. “Wow! Double wow!” his mother had emailed him, referring to Boeing’s closing stock price that day. And, it would soon emerge, he wanted to get some distance from what he described to the *Puget Sound Business Journal* as “how-do-you-design-an-airplane stuff.”

The next year, he moved Boeing’s headquarters to Chicago, pulling the top brass away from the shop floor just as the company was embarking on a radically new approach to airplane assembly.

Its newest plane, the 787 Dreamliner, would not be an in-house production. Instead, Boeing would farm out the designing and building to a network of “partner” companies - each effectively its own mini-Boeing with its own supply chain to manage. “It used to be you’d have some Boeing people develop the blueprints, then march over and say, ‘Hey, would you build this for me?’” Richard Safran, an analyst at Seaport Research Partners and a former aerospace engineer, told me. “Now, instead, you’re asking them to design it, to integrate it, to do the R&D.”

The allures of this “capital light” approach were many: Troublesome unions, costly machine shops, and development budgets would all become someone else’s problem. Key financial metrics would instantly improve as costs shifted to other firms’ balance sheets. With its emphasis on less, the approach bore a superficial resemblance to lean production. But where lean production pushed know-how back onto the shop floor, this pushed the shop floor and its know-how out the door altogether.

Beyond that were the problems that a Boeing engineer, L. J. Hart-Smith, had foreseen in a prescient white paper that he presented at a 2001 Boeing technical symposium. With outsourcing came the possibility that parts wouldn’t fit together correctly on arrival. “In order to minimize these potential problems,” Hart-Smith warned, “it is necessary for the prime contractor to provide on-site quality, supplier-management, and sometimes technical support. If this is not done, the performance of the prime manufacturer can never exceed the capabilities of the *least* proficient of the suppliers.”

Boeing didn't listen. Wall Street dismissed Hart-Smith's paper as a "rant," and Boeing put each supplier in charge of its own quality control. When those controls failed, Boeing had to bear the cost of fixing flawed components. Most troubling was the dangerous feedback loop Hart-Smith foresaw. Accounting-wise, those fixes, which in reality are the costs of outsourcing, would instead appear as overhead - creating the impression that in-house work was expensive and furthering the rationale for offloading even more of the manufacturing process.

In the short term, this all worked wonders on Boeing's balance sheet: Its stock rose more than 600 percent from 2010 to 2019. Then the true folly of this approach made its inevitable appearance when two strikingly similar crashes caused by faulty software on Boeing planes killed a total of 346 people.

Today, if you stand along the Seattle waterfront long enough, sooner or later you'll catch sight of a train headed south carrying the distinctive shape of a Boeing 737. Though it's coloured a metallic green and missing its tail - clearly not the finished product - it's the kind of thing you point to and say, *Look kids, a Boeing plane's on that train!* Not so. **The logomark on the side spells it out: Spirit AeroSystems of Wichita, Kansas, has built this fuselage, which isn't coming from Boeing. It's going to Boeing.** (Ed. Emphasis)

A plane is a complex system in which the malfunction of one piece can produce catastrophic failure of the whole. Assembly must be tightly choreographed. But now - especially with Boeing continually trying to wring costs from its suppliers - there were many more chances for errors to creep in.

And when FAA investigators finally toured the premises of Spirit AeroSystems - maker of the blown-out door as well as the fuselage it was supposed to fit in - they did not find a tight operation. They found one door seal being lubricated with Dawn liquid dish soap and cleaned with a wet cheesecloth, and another checked with a hotel-room key card.

A dark age doesn't descend all at once. The process of emerging from one also takes time. It must begin with a recognition that something has been lost. Boeing's fall just might have provided that rush of clarity. You could be from the 12th century and still *know* that soap and cheesecloth aren't for making flying machines. Boeing's chief financial officer recently admitted that the company got "a little too far ahead of itself on the topic of outsourcing." It is in talks to reacquire Spirit AeroSystems and is already making the composite wings of its next-gen plane, the 777X, in-house at a new, billion-dollar complex outside Seattle. "Aerospace Executives Finally Rediscover the Shop Floor," *Aviation Week* declared on the cover of a recent issue.

As for the rest of corporate America, one of the strongest signals may be coming from the company Boeing has striven so hard to emulate: GE. Under operations-minded boss Larry Culp, the company is finally - only 40 or so years late - pushing itself through a crash course in lean manufacturing. It is belatedly yielding to the reality that workers on the *gemba* are far better at figuring out more efficient ways of making things than remote bureaucrats with spreadsheet abstractions.

In the crucial field of semiconductors, meanwhile, Intel has recognized that Moore's Law (the doubling of computing power roughly every 18 months) flows not from above but from manufacturing advances it once dominated. It has undertaken a "death march," in the words of CEO Pat Gelsinger, to regain its lost edge on the foundry floor.

The CHIPS Act has put a powerful political wind at his back. Green and other incentives are powering a broader, truly seismic surge in spending on new U.S. factories, now going up at three times their normal rate. No other country is experiencing such a buildout.

Add all the capacity you want. It won't reverse the country's long decline as a manufacturing superpower if corporate America keeps gurgling its sad, tired story about the impossibility of making things on these shores anymore. It's a story that helped pour a whole lot of wealth into the executive pockets peddling it. But half a century of self-inflicted damage is enough. The doors have fallen off, and it's plain for all to see: The story was barely bolted together.

BOEING NEEDS TO BE LED BY ENGINEERS if it wants to pull itself out of its current crisis, Tim Clark, the president of Emirates Airline, said Wednesday.

Boeing said Monday that CEO Dave Calhoun will step down at the end of the year, part of a broad management shake-up. The U.S. aerospace giant is once again mired in controversy following a recent series of mid-flight technical failures, starting with a door panel that blew off of a new Alaska Airlines 737 Max 9 mid-flight on Jan. 5

The Federal Aviation Administration and Justice Department are now scrutinizing the plane maker more intensely, the former capping the production of Boeing's 737 aircraft at 38 per month while it investigates the company's manufacturing practices. The FAA grounded all 737 Max 9 aircraft with door plugs for inspection on Jan. 6, though the planes were cleared to fly shortly afterward.

"To fix Boeing's issues the company needs a strong engineering lead as its head coupled to a governance model which prioritizes safety and quality," said Clark, who leads Dubai's flag carrier Emirates.

"It is little wonder that the Machinists Union wants a seat on the board, simply to ensure that the voice of the factory floor is part and parcel of the decision process and is fully integrated into the governance model's risk management strategies."

Aviation analysts and former Boeing employees have criticized the company's reported sidelining of engineers in its senior management ranks. They note that of the top executives at Boeing, the only one with an engineering background was Stan Deal — the outgoing CEO of Boeing's commercial airplane division. He is stepping down and will be succeeded by Stephanie Pope, Boeing's newly named chief operating officer, Boeing said Monday.

"Whether, yet again, this changing of the guard will resolve Boeing's issues only time will tell, but time, unfortunately, is not on their side," Clark said in emailed comments. "I would suggest that some serious lateral thinking kicks in as soon as possible."

BOEING WHISTLEBLOWER RECEIVED DEATH THREATS

A Boeing whistleblower has described facing threats and retaliation for raising concerns about the company's "defective airplanes".

Boeing was the subject of two back-to-back hearings in the US Congress on Wednesday, the second of which featured testimony from the engineer Sam Salehpour before the Senate's permanent subcommittee on investigations. Mr Salehpour, who has worked at the aircraft manufacturing giant for a decade, said he had been trying to warn leadership about serious concerns about the way 787 jets are assembled for the past three years. He said his complaints were ignored and that he was moved from projects as a result of his reports.

"I'm not here today because I want to be here. I am here because I feel I must come forward because I do not want to see (a) 787 or another 777 crash," Mr Salehpour said. "I was ignored, told not to create delays, told, frankly, to shut up ... My boss said, 'I would have killed someone who said what you said,' during a meeting."

Mr Salehpour said he first became aware of issues with the production of the 787 after noticing that employees used excessive force to "squash" aircraft pieces during assembly. "I literally saw people jumping on pieces of the airplane to get them to align," he said. "I repeatedly produced reports for my supervisor and Boeing management that the gaps on the 787 were not being properly measured or shimmed into two major joints of the 787." Mr Salehpour testified that after analysing data from 29 inspected aircraft, he found that 98.7 per cent of the time issues with gaps were not addressed. In 80 per cent of cases debris found its way inside gaps that were not properly closed, he said.

He said management responded to his complaints by moving him to the 777 program, where he went on to raise more manufacturing shortcomings. He was removed from meetings, sent on red herring projects, and eventually received death threats, he said.

Mr Salehpour accused the Boeing leadership of making his life “miserable” and fostering a culture of harassment where his co-workers felt afraid to come forward with safety concerns. “I’m scared ... but I’m at peace. If something happens to me, I’m at peace,” he said. “I feel like by coming forward I’m saving a lot of lives.”

Mr Salehpour’s allegations are now the subject of a wide-ranging investigation by the Federal Aviation Administration.

Ed Pierson, a former Boeing senior manager and the executive director of the Foundation for Aviation Safety, also testified before the Senate committee on Wednesday. Mr Pierson accused government authorities of failing to address Boeing’s manufacturing pre-emptively and aiding in a “criminal cover-up”.

“Nothing changed after the two crashes, there was no accountability,” he said, referencing the Lion Air crash in 2018, and the Ethiopian Airlines crash the year after. “Not a single person from Boeing went to jail. Hundreds of people died and there’s been no justice. Unless action is taken and leaders are held accountable, every person boarding a Boeing airplane is at risk.”

Ron Johnson, a Republican senator for Wisconsin, called for a “full-blown” investigation into the allegations presented in the hearing. Richard Blumenthal, a Democrat from Connecticut, said he planned to hold further hearings and to question David Calhoun, the Boeing chief executive.

Boeing has previously said it is co-operating with congress while maintaining that its 787 and 777 models are safe to fly. At a media briefing on Monday, Boeing engineers pushed back against Salehpour’s claims, saying that the plane’s surface was resistant to metal fatigue.

Boeing said that no signs of fatigue had been found after analysing more than 165,000 flights. Earlier this year, members of congress pressed Boeing for answers after a mid-air door plug blowout on an Alaska Airlines flight in January. Later that month, Calhoun, who is set to step down at the end of the year, met several senators on Capitol Hill.

The regulator said in a statement on March 4 that a six-week audit stemming from the January incident had found “multiple instances where [Boeing] allegedly failed to comply with manufacturing quality control requirements”.

WHEN IT COMES TO BUILDING PLANES, Boeing CEO Dave Calhoun is all about streamlining costs.

An accountant by training, Calhoun has prioritized fiscal discipline over his four years at the helm, tightening the belt to free up cash flow and put the company on better financial footing. But when it comes to living the CEO lifestyle, that thriftiness goes right out the window.

Boeing reported in a regulatory filing that four top executives, including Calhoun, got an extra half-million dollars’ worth of personal private jet travel on the company’s dime that had previously been improperly recorded as business travel, my colleague Chris Isidore writes.

That oopsie was discovered in an internal review, which was prompted by a Wall Street Journal investigation last year into Boeing executives’ private jet travel, the paper reported Thursday.

Boeing requires Calhoun, who is stepping down later this year, to use its private jets for business and personal travel for security reasons. And that’s pretty standard. If he’s flying from the company’s headquarters in Arlington, Virginia, to its production facility outside Seattle, that’s generally considered a perk of the job.



But when a CEO uses the company jet for a family vacation, that usually counts as taxable income. The IRS is a stickler about these things, and it recently announced it would be cracking down on executives who have been illegally writing off personal trips as business expenses. There is no evidence anyone from Boeing was doing that, but the crackdown signals that it's happening with some regularity in Corporate America.

Over the last three years, Calhoun racked up \$979,000 in personal air travel, according to the company. Boeing did not have any comment beyond the information in the filing.

In all the chatter about Boeing's disastrous start to 2024, we've barely had time to talk about the crisis looming on the horizon: a potential strike by its largest labour union.

A 10-year contract covering 30,000 Seattle-area machinists expires September 12. Negotiations started last month — delayed to give the company some slack while dealing with multiple federal probes into the January 5 door-plug blowout. The machinists are seeking a 40% pay bump over three years and a seat on the board of directors.

It's going to be pretty awkward for Boeing leadership to try to nickel and dime the people who build the planes while lavishing Calhoun with a nearly \$33 million payday last year (a 45% bump from 2022), and teeing up his \$45 million retirement package, and batting down questions about the boss bouncing between his two homes, neither of which are located near the company's headquarters.

"With what's going on these days, we are oftentimes the last line of defence, and we have to save this company from itself," the union's president, Jon Holden, told the FT last week.

And finally, something (semi) Boeing-positive! (Ed)

THE NEW BOEING CEO MUST BE AN AIRPLANE GEEK: Not Just a Bean Counter

Aram Gesar

As Boeing prepares for a leadership change later this year, the incoming CEO faces an immense challenge: orchestrating a profound cultural shift within the company's vast workforce of over 170,000 employees, a significant portion of whom are engineers.

The realm of modern air transportation stands as a testament to human ingenuity, where complex aircraft take to the skies daily with unparalleled safety records. Yet, behind this remarkable feat lies a meticulously crafted blend of engineering excellence, rigorous quality processes, and steadfast adherence to safety protocols—a cultural ethos that forms the backbone of the aviation industry. However, it's this very cultural element that appears fractured within Boeing.

To revitalize Boeing's ethos, the new CEO must surround themselves with individuals who share a genuine passion for aviation and the company's mission to craft exceptional airplanes. Executive discussions should transcend mere financial metrics, delving into the realm of product innovation, customer feedback, and, critically, safety imperatives.

Authenticity is paramount; Boeing's leadership must embody a sincere enthusiasm for their unique products.

This approach mirrors the successful ethos cultivated by Airbus, where leaders embrace a deep appreciation for aviation. From parachuting out of new aircraft to piloting stratospheric gliders, Airbus CEOs exemplify a genuine "AvGeek" culture that permeates the organization—a stark contrast to mere "bean counters" who lack this intrinsic passion.

Furthermore, Boeing could emulate the transformative impact of broad-based equity ownership seen in select industrial companies. By extending meaningful ownership stakes to all employees, not just executives, Boeing can foster a culture of shared responsibility and pride in company operations. Such an initiative not only boosts operational performance but also strengthens labour relations—a critical aspect given Boeing's historical challenges in this realm.

The development of Boeing's most recent aircraft, the 787, commenced two decades ago. Airlines often share a strategic mindset akin to that of the military. Falling short on technological parity with competitors implies a vulnerability to being undersold and outperformed on specific routes. Thus, Calhoun's insistence that a new jetliner must surpass current equipment by 20-30% is misguided.

Given the narrow profit margins in the airline industry, even a modest performance enhancement of 10-15% can yield significant advantages, as demonstrated by the Boeing 777-200 compared to the Airbus A340-300 or McDonnell Douglas MD-11, or the 787 relative to the A330. Moreover, the concepts for new jetliners promise considerably greater improvements than those percentages suggest.

Moreover, Boeing must embrace a bold vision for the future, transcending the incrementalism that has characterized its recent aircraft developments. A steadfast commitment to delivering a true-zero-emissions aircraft—a moon-shot akin to NASA's lunar landing Endeavor—can reignite employee enthusiasm and position Boeing as a leader in sustainable aviation technologies.

As someone who has been immersed in Boeing's engineering pursuits and writing about civil aviation for four decades, my optimism for the company's potential resurgence remains unwavering. By placing a premium on passion over profit, empowering employees as stakeholders, and embracing ambitious objectives, Boeing can navigate a path towards revitalized eminence in the skies and space.

FLIGHT SAFETY

ALL SEVEN OCCUPANTS OF A BOEING 727 FREIGHTER HAVE SURVIVED after the aircraft crashed into the wreckage of an aircraft which had itself suffered a landing accident two months ago.

The aircraft, a -200F, bears the Kenyan registration 5Y-IRE and is listed in the fleet of Safe Air Company, based at Nairobi's Wilson airport.

It had been transporting supplies from the South Sudanese capital Juba to Malakal in the north of the country on 31 March.



The Upper Nile state governor's office says the aircraft "encountered problems" and was "forced to make an emergency landing". "[It] skidded off the runway and crashed into the debris of another [aircraft] that had crashed just a few months earlier," it adds.

The previous accident had involved an African Express Airways Boeing MD-82 which apparently experienced a landing-gear collapse on 9 February.

The 727 collided with the MD-82's wreckage during the subsequent accident, coming to rest with its forward fuselage on the twinjet's left wing. "All seven people on board were able to evacuate [the 727] safely," says the governor's office, which refers to the aircraft having been "operated by Cush Airline". The 727's aft fuselage fractured and at least part of the trijet's undercarriage appears to have broken away.

Malakal has a single runway designated 04/22. Upper Nile governor James Odhok Oyay has called for improvements to Malakal's runway in order to increase safety, after voicing concern about the airport's capabilities.

A US PILOT SCHOOL HAS BANNED SOLO FLIGHTS FOR TRAINEES at one of the world's top airlines after a spate of incidents

A pilot school in Phoenix has stopped **Cathay Pacific cadets** from flying solo. It said planes were damaged in incidents that weren't properly reported. Cathay, one of the world's top airlines, is trying to increase its number of pilots.

An Arizona pilot school has stopped Cathay Pacific trainees from flying solo after several incidents that went unreported, Bloomberg first reported.



Cathay Pacific, the Hong Kong flag carrier, is considered one of the world's best airlines — one of just 10 globally to be ranked five stars by Skytrax.

In an internal memo, the AeroGuard Flight Training Centre in Phoenix said it saw "an alarming increase in solo incidents during cadet training," according to Bloomberg.

A NETWORK AVIATION OPERATED F100 was conducting a scheduled passenger flight from Perth on 22 November 2021 and as the aircraft approached Paraburdoo the flight crew encountered unforecast weather, an ATSB investigation details.

"Having completed 2 missed approaches at Paraburdoo, the flight crew had lost confidence in their flight plan weather forecasts and were reluctant to attempt a diversion to an alternate airport without current weather information for the alternate," said Transport Safety Director Dr Stuart Godley. "After the third missed approach, the aircraft did not have sufficient fuel to reach a suitable alternate and the flight crew were committed to landing at Paraburdoo."



The flight crew conducted a RNAV GNSS approach to Paraburdoo's runway 24, which required the crew to visually acquire the runway at a height above the aerodrome of no less than 584 ft. The investigation report details that 25 seconds after the aircraft descended through the minima, the autopilot was disconnected and the pilot monitoring announced that they had sighted the runway and that they were on profile. At this stage, the aircraft was 293 ft above ground level and 291 feet below the minima/MDA. Flight data recorder information indicated a steady descent profile on the approach and a maximum of 5° heading change between the autopilot disconnect and landing.

"The actual weather conditions the flight crew encountered at Paraburdoo were below their landing minima and were continuing to deteriorate. The cloud base at Paraburdoo was difficult for the Bureau of Meteorology to forecast as detection of low cloud by satellite imagery was obscured by higher level cloud," said Dr Godley. After their second missed approach the crew attempted to obtain from air traffic control an updated forecast for Newman Airport for a possible diversion there.

"However, the crew did not express any urgency when making this request, which, in combination with air traffic control workload at the time, resulted in a delay of 15 minutes before an update was offered. By that time, it was no longer required as the aircraft no longer had sufficient fuel remaining to divert to Newman."

The investigation notes that the crew had no other means of obtaining updated weather forecasts for potential alternates beyond contacting air traffic control, as the aircraft was not fitted with an operational ACARS digital datalink messaging system, and the aircraft was beyond the range of the nearest AERIS automatic enroute information service (which broadcasts a range of weather

information from a network of VHF transmitters). Meanwhile, there is an automated weather station at Paraburdoo, but it did not have a means of detecting the moisture content in the atmosphere above the surface. "This increased the risk that low cloud below the instrument approach landing minima might not be forecast."

Dr Godley said the incident highlights the importance for all operators to consider how unforecast weather will be managed and ensure it is reflected in their risk management. "This is so that safety assurance activities can review how effectively it is managed and provide feedback for management review."

Other than a procedure that limited the number of missed approaches to 2, Network Aviation did not provide flight crew with diversion decision-making procedural guidance when encountering unforecast weather at a destination, the investigation found. In addition, the operator did not include the threat of unforecast weather below landing minima in their controlled flight into terrain risk assessments. This increased the risk that controls required to manage this threat would not be developed, monitored, and reviewed at a management level.

"The ATSB acknowledges and welcomes that, since the incident, Network Aviation has implemented several proactive safety actions in response to safety issues identified in the investigation," Dr Godley said. These include introducing several diversion decision-making tools for F100 flight crew, such as an amendment to their flight plans to include an 'alternate summaries' section for all flights, the top of descent arrival brief procedure to include 'minimum divert fuel', and the introduction of an *F100 Company Procedures Manual* with pre-populated standard divert calculations for F100 destinations. In addition, the operator has updated their controlled flight into terrain risk assessments to capture the threat of adverse weather.

THE US FAA HAS ENACTED a regulation necessitating a "secondary" cockpit barrier in new passenger planes, in an effort to more effectively deter passengers from breaching the cockpit.

The FAA announced recently that aircraft manufacturers are mandated to install secondary barriers on commercial aircraft produced after the implementation of the regulation. The new secondary barriers will "enhance the safety of aircraft, flight crew, and air passengers" by shielding the cockpits "when the flight deck door is open," according to the FAA.

The provision modifies US air carrier operating guidelines and aircraft certification regulations to mandate that aircraft manufactured two years post the rule's enforcement - which would be approximately mid-August 2025 - must be equipped with these devices.

The barriers are designed to offer an added layer of safety during instances when pilots leave or enter cockpits during a flight. The rule notes that the flight deck could be susceptible to attack during periods when the flight deck door needs to be opened for lavatory breaks, meal service, or crew changes.

This rule aims to delay such an attack sufficiently to allow the flight deck door to be shut and locked before an attacker could reach the flight deck.

The new cockpit barriers must withstand a forward load of 272kg (600lb), an aft load of 463kg, and delay a person's entry into the cockpit by a minimum of 5 seconds.

The pilot union ALPA (Air Line Pilots Association) supports the rule, calling the requirement "long overdue".

The FAA was directed to require secondary barriers by a 2018 law passed by the US Congress. The FAA proposed the rule in August 2022.

JAPAN AIRLINES has named its first female president, a former cabin attendant who rose through the ranks to senior management, taking a deeply symbolic step in a country struggling to close a vast gender gap at work.

Mitsuko Tottori, a senior managing executive officer who joined JAL in 1985, the year it suffered one of the worst crashes in airline history, became president April 1.



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to Singapore transits over Brisbane with some amazing rainbow contrails. The full sequence of stills images captured did not continually show the contrails phenomenon and while the aircraft mostly had a solid trail of condensation behind it as it crossed Brisbane, there were breaks in the contrails formation when the aircraft crossed overhead near The Gap and headed out towards Wivenhoe Dam, where it again formed a solid contrail. This is one frame showing the full carpet of condensation forming behind the aircraft, with the Sun refracting light off the ice crystals and forming a rainbow.

(Photo courtesy Bob Braithwaite)

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