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EDITORIAL

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COMMENT

This month, Gary Parata's ALPA View feature article highlights the inappropriateness and sheer bloody pointlessness of "blame" in addressing aviation safety.

Gary Parata's article is the most enlightened summary and overview I have ever seen of the tragic Erebus crash. In my opinion, it answers all sides of the argument (as pointless and irrelevant as that argument is) over "responsibility" and "blame", neither of which have any place in aviation safety. The concept of blame is, by its very definition, directly counter-productive to improving safety. *"There are no solutions at the end of a pointed finger."* (Ray A. Davis)

No sooner had I received the excellent ALPA View item than I read a horrifying news item detailing the sentences of 10 years' imprisonment imposed (*in absentia*) upon three airline executives, and a British engineer blamed for contributing to the Helios Airways Boeing 737 crash in 2005.

The sentence upon these unfortunate individuals redefines the word "scapegoat" and simultaneously makes a galactic-sized mockery of both "justice" and aviation "safety". *"The search for a scapegoat is the easiest of all hunting expeditions."* (Dwight D. Eisenhower)

Incredibly, there was no proof that the hapless engineer actually did anything to cause the crash and his alleged "contribution" was, at worst, a minimal oversight that a professional flight crew should have detected subsequently. Nevertheless, the clamour to find someone—anyone, apparently—to "blame" has resulted in the engineer and the airline executives each being sentenced to 10 years.

Not only has this form of "justice" failed to bring a single one of the crash victims back to life, but also, I believe, it will have a catastrophic effect on aviation safety throughout Europe and possibly the world. It is not just Greece that has been gutted by its moronic judges and even more moronic "justice" system, but also everyone who flies into or over that land or has anything to do with the Greek aviation industry. Who on earth would want to have anything to do with a culture in which such extreme punishment could be considered appropriate? Perhaps the Greeks should have remembered a quote by one of their own—Mestrius Plutarchus (46–120 AD), who said: *"To find fault is easy; to do better may be difficult."*

Tragically, even though its example is so spectacularly bad, Greece is far from unique in believing it is better to blame somebody for the past than to try and improve the future. For example, France spent millions trying to blame all manner of individuals for the Concorde crash and, in 2006, the Brazilians arrested the two Embraer Legacy pilots who survived a mid-air collision with a Gol Boeing 737 that killed 154 people; their arrest came well before the cause of the crash was even established.

Only when there is clear evidence of extreme criminal neglect, deliberate acts of sabotage or demonstrably reckless conduct is "blame" or prosecution for "responsibility" even remotely appropriate. If we, as a society, continue to prosecute individuals for mistakes committed while acting with the best of intentions, we are discouraging openness and honesty, and actively encouraging people to hide the truth. Only by shining the light of truth upon the dark circumstances of tragedy can we hope to make things better and avoid condemning ourselves to endless repetition of the same mistakes. *"When you blame others, you give up your power to change."* (Robert Anthony).

Rob Neil

Pacific Wings Editor

Erebus: Accept the Lessons; Forget the Blame

Article by **Captain Gary Parata**

Gary Parata argues that there is no place in the present or the future for arguments about "blame" or calls for "exoneration" over the 1979 Air New Zealand DC-10 crash on Mt Erebus; only the lessons learned should be carried forward.

The February 2012 call by Peter Dunne MP to "exonerate" the Erebus accident flight crew following the publication of Paul Holmes' book *Daughters of Erebus* arguably misses the point; the crew have already been exonerated by a comprehensive Royal Commission of Inquiry. On 25 August 1999, the Parliament of New Zealand finally accepted the Royal Commission's findings; surely that is enough. However, Mr Dunne's call seeks to restate these findings, given that there are a number of people who, from time to time, still comment that because the flight's commander, Captain Jim Collins, was "responsible" for the flight, he therefore also must *ipso facto* be "responsible" (read: "to blame") for its demise. The Royal Commission issued conclusions indicating things were somewhat more involved than that; this was later reaffirmed in statements made *obiter dictum* by the highest law court of the time, the Privy Council, when the Law Lords praised the "painstaking" work done by the Royal Commission. Despite a strong belief to the contrary, no appeal court overturned the Royal Commission's opinions as to the cause, and these opinions are as relevant today as ever, and they point, not to anyone in particular, but to an organisational malaise that had remained dormant and hidden.

What pilots really think of this accident

Interestingly, pilots tend to fall into one of two camps whenever one of their brethren suffers an accident. Firstly, there is the "there but for the grace of God go I" group. These pilots appreciate that whatever circumstances befell a particular crew, the same thing could have happened to any of them, no matter how unlikely. Some go further than that; they identify all contributing factors then campaign vociferously to have them fixed. Afterwards, they teach others the lessons learned. This group isn't interested in apportioning blame. They don't wait for accidents to happen. These pilots seek to prevent them from happening in the first place. After all, whenever there is an accident, the flight crew are usually the first to die; thus they have a significant stake in air safety. They are also always under-represented during accident investigations despite the vast technical expertise they bring. This is ostensibly because official investigations must remain independent; yet representatives from aircraft operators, manufacturers and regulatory authorities (all of whom have liability—and thus independence—constraints that do not encumber flight crews) are often co-opted for their expertise, not the people with the most expertise in actually operating the things. Go figure.

Having said all that, it may be surprising to note there is another group of pilots. Their shtick is that whatever the failure, they would have been able to defeat it, and anyone that couldn't—well, to them, that's the problem right there! These pilots seem to be quite beyond accidents and their lofty position leads them to adopt hypercritical attitudes towards colleagues involved in them. This is partly because the "blame culture" is all-pervasive in human society; centuries of conditioning have all but assured this. These pilots hold that if an accident occurs, the commander must have been at fault because of something they don't bother defining but variously refer to as "duty", "command responsibility" or suchlike. Indignantly, they thunder "command responsibility!" as if commanders are omnipotent demigods, and there the matter rests. Unlike the positive behaviour of the first group of pilots, this contributes nothing to aviation safety.

Unfortunately, this ideal transfers readily into the greater development of human society, slowing it accordingly. That is, when something bad happens, someone must be punished or held accountable. This gives society a sense that if something has been done about it quickly, we will feel better, sooner. Little or no work is done in actually identifying the real problems, let

alone fixing them. One has to first acknowledge they exist, and with this group, that is by no means certain, either.

It seems tailor-made, then, that two reports into this accident were published. The "Chippindale Report", produced by the investigator in charge, Ron Chippindale (but which could have been produced by this second group of pilots), simply took the last event leading to the accident (i.e. Collins' decision to descend) and assigned to it the lofty mantle "probable cause". That was how investigations were done back then and, ordinarily, that would have been that.

The Royal Commission and the "Mahon Report"

Enter Peter Mahon: a judge of the High Court of New Zealand. Mahon's appointment to the Royal Commission of Inquiry produced a study that utilised an investigative methodology ahead of its time by at least 10 years. It started a chain reaction that resulted in a rethink on how accident investigation and reporting is conducted. Mahon wasn't satisfied with the finding by Chippindale because the latter made no attempt to answer seriously the obvious question of "What possessed this crew to fly into a mountain?" So the Commission dug deeper.

But just for a moment, set aside the well-known things on which it opined: the changed co-ordinates, the visual whiteout illusion and, especially, the "orchestrated litany of lies." These are but distractions that disguise the real value of his work. What really mattered was that Mahon began an evolutionary process: the creation of a framework that examines the last cause, the first cause and everything else in between. We see the fruits of this today. Now, official accident reports worldwide bear a remarkable resemblance to Mahon's early work and less to Chippindale's. This was due, not so much to Chippindale himself, but rather to the limited formulaic approach he was required to take at that time. In fact, if Chippindale had written his report today, it would look nothing like what he originally produced. However, many have convinced themselves that Chippindale was dishonest or incompetent. With the exceptions of his treatment of the cockpit voice recorder—with which this writer is deeply disappointed—and perhaps in the conclusion that the crew was not certain of the aircraft's position, it is not true that Chippindale was dishonest or incompetent, his conclusions were simply insufficient.

As an aside, the crew had no doubt where their aircraft was when it was descending; it was in clear air, with excellent visibility, right over the top of McMurdo Sound! Read it again. **The crew had no doubt as to the aircraft's position**. They didn't **think** the aircraft was there, they **knew** it was there. They had no reason to doubt this knowledge. Forget about the lack of VHF communications and lack of radar identification; these cues were far too weak to override the various visual cues they were getting from the terrain on either side of Lewis Bay—a dead-end leading to Mt Erebus—which looked similar to what they expected to see from the cliffs of McMurdo Sound. It was only later, when, at a distance of 26 nautical miles from McMurdo, the cues which had been subtly failing the crew for some minutes prior to this point caused Collins to make the decision to fly the aircraft away. The crew had just started a tactical discussion on how best to achieve that when the aircraft struck the lower slopes of the mountain. But I digress. Chippindale didn't cause the accident. **Let it go**.

Mahon's report also suffers from not being perfect; it, too, has its critics. They like to say Mahon was blinded by Captain Gordon Vette of the New Zealand Air Line Pilots' Association and the latter's scientific theories as to how the crew were tricked into descending into danger. Apparently seduced by whiteout and other arcane concepts in human psychology, Mahon is supposed to have then buckled and swayed in favour of the aircrew. Fortunately, this fantasy does not wash at all. Mahon's experience as a High Court judge easily allowed him to place Vette's work in its correct context. If anything swayed Mahon away from blaming the pilots and onto an alternative possibility, it was the interesting performance of certain witnesses before him, something with which Mahon was well experienced at examining in his capacity as a High Court judge. Notwithstanding the appeal court cases, which held that Mahon was not entitled to declare unilaterally that there had been a collective attempt by these witnesses to deceive the Commission, nevertheless, their party's case before the Commission disintegrated because deception is exactly what they projected. That Mahon did not provide a warning that he would reject their testimony formed the cornerstone of their appeal against this conclusion. Of course, this had nothing to do with the crash itself; **let it go**.

The descent decision: a valid option, an error committed in good faith or a reckless violation?

Now let's look at criticism of Collins, which relies mainly on his decision to descend visually through a large break in the cloud—ostensibly in contravention of the operator's briefing instructions that supposedly placed an absolute prohibition on descents below certain altitudes. There seem to be no such qualms about a radar-guided descent, even though this type of descent appeared not to have been exempted from the supposed descent requirements. Selecting the visual descent over the radar-guided option is merely interesting rather than damning. Some may have chosen this method; others, maybe not. However, none of us was there; we know nothing of the view through the flight deck windows, apart from recorded fragments of comments. Fortunately, there were at least three people present who were perfectly placed to assess this decision: the first officer, Greg Cassin, and both flight engineers, Gordon Brooks and Nick Moloney. Alone amongst the flight crew in having had previous Antarctic experience, Brooks was well-known for taking no nonsense from his commanders. Therefore, if the decision to descend was really as bad as the critics would have us believe, then Brooks—and probably Cassin and Moloney too—would have told Collins unequivocally that such a descent was not permitted (if it broke any rules) or should not be undertaken (if the weather conditions were not suitable). It really is as simple as that.

Commanders are not demigods. Despite popular belief, fuelled by Chippindale's discredited cockpit voice recorder transcript and misinterpretations of comments such as "I don't like this," the other crew members did not dissent in any way from this decision. This was acknowledged by the Director of Civil Aviation at the time, who interestingly suggested under oath that the crew must have been afflicted simultaneously by some psychological condition that prevented them from not descending. Ironically, this turned out to be correct; just not quite the type of "affliction" he had envisaged!

Could Collins and his crew have saved their aircraft? Certainly, he might have chosen not to descend. Let's assume the decision to descend was an error, albeit committed in good faith. Since errors committed in good faith are a normal component of human behaviour, including by aircraft commanders (who, remember, are not omnipotent demigods), an adequate system must be in place that can catch and neutralise these errors. In this case, a safe system would have thrown up definite red flags if this decision was unsound. It did not. It is more critical than that, even. A system reliant on the absence of all human error to be safe is, in fact, an extremely unsafe system, because absence of human error cannot be achieved. One might argue that replacing pilots with automation or remote control from the ground is a solution. One might, in turn, imagine the carnage had there been no pilots aboard the famous Hudson River "miracle" aircraft. It is far easier, cheaper and safer to put the humans in a human-friendly system to begin with.

In stark contrast, a violation is a deliberate act or omission of duty, for which a systemic solution is difficult to find. Safety systems require that violations not be committed at all, except to counter a systemic weakness subsequently discovered in the field; unlikely in a good system, but nevertheless possible. Once upon a time, Collins' critics were satisfied to argue that he made a mistake, and left it at that. Once it was shown to them that simple human error would not cause an accident in a strong air transportation system, they upped the ante; they then needed us to believe that he committed one or more violations—reckless in nature—in order to support their reasoning. On the flight deck of an airliner, it is scarcely possible for a single crew member to execute a reckless violation unless violence is used to achieve it. Otherwise, and as has already been said, Cassin, Brooks and Moloney would have stopped it or they themselves all would have been complicit. Neither possibility is supported by the cockpit voice recorder transcript, even in Chippindale's discredited version. This leaves us with the "pilot error" argument.

But if, by any supposed error, you then say Collins should be held responsible for the accident (read: Collins **caused** the accident and therefore he must now be **blamed**), you are trapped in this same pointless argument cycle that others have found themselves trapped in over the past 30 or so years. This is because an alternative decision from Collins was not the only factor that might have prevented the accident. It is the same if you attempt to assign cause—and, by association, blame—to the people who changed the co-ordinates because, following this reasoning, you can't do that, either. As to that, Mahon found himself in an invidious position; ironically, his terms of reference virtually required him to find blame somewhere. In Mahon's eloquent prose, however, he found the mistake with the changed co-ordinates attributable "not so much to the people who made it but to the administrative procedures that made the mistake possible." These words are what Mahon ought to be remembered for. In the simplest of sentences, he shifted the focus away from simple blame and onto systemic failure and, by so doing, started a safety revolution that spread throughout the world, through multiple industries. Forget that he said the co-ordinates were the dominant reason the aircraft crashed; that is a red herring. Many others, including professional aviators, have allowed themselves to be transfixed by that. **Let it go**.

It seems incongruous to suggest that Collins failed in his "command duty", especially when you consider that in order to have succeeded, he was first required to outwit a flawed system

that had a number of weaknesses therein, so that once whiteout and altered co-ordinates were thrown into that mix, the accident suddenly had a far greater chance of occurring. You could have put any crew on board that day. They **might** have avoided the accident but that is not the point; the risk of an accident occurring still went up. Having to defeat flawed systems in order to decrease the chances of an accident might have been acceptable to 1950s military commanders, in a time when aircraft were falling out of the sky with monotonous regularity; in more modern times, with hundreds of people sitting behind you, it is not. It took us a while to learn this, but learn it we have, and the accident rates continue to fall as a result.

The futility of relying on humans to outperform systemic weakness

So why did the aircraft crash? The reality of November 28, 1979 is that, with or without Mt Erebus, whiteout, Capt. Collins, Ron Chippindale, Peter Mahon and the myriad of books, papers and arguments that followed, there existed an air transportation system with numerous weaknesses which, for different reasons, had remained hidden for some time. These flaws eventually led to the crash of flight TE901 because the flight crew rostered to operate that service on that day encountered circumstances which none of the other crews had experienced on previous Antarctic flights. These active factors amplified the pre-existing weaknesses to the point where this particular crew could not outperform them. The Mahon Report identified many of these flaws for the first time.

Therein lies a crucial point: pilots must never be required to outperform any systemic weaknesses in order to make a system safe; that, in itself, is an inherently unsafe system. It doesn't matter how good you are or how how stellar your ability is, for any organisational flaws will, sooner or later, defeat individual human performance. Systems that are as fail-safe as we can possibly make them, therefore, should be put in place before the human is required to work in them. This goes for any industry, not just aviation. Who wants an anaesthetist who has been awake for 24 hours, using ergonomically challenged equipment, monitoring them during their surgery? What is the price for the system that allows it? If the anaesthetist—fatigued to the point of incapacitation without knowing it—turns the wrong lever (because it looks like the correct lever) and kills a patient, do we seek to save lives by blaming the anaesthetist, or do we campaign for the adoption of fail-safe procedures that prevent the use of poorly designed equipment? Do we save lives by campaigning for duty time limits and mandatory minimum rest periods for health care professionals? This is where Mahon's work really leads us.

As our hapless anaesthetist would no doubt attest, the real culprit is the creation of systems with insufficient consideration for the humans required to operate in them. Since now there is actually no-one to blame when things go wrong though, this simple reality is regularly dismissed because it fails to provide the gratification demanded by centuries of **blame training**. Thus, setting aside the blame game in favour of tackling the real issues will require a degree of societal enlightenment that probably is still several generations away. But there are signs that it is beginning to occur. The report into the 1995 Cave Creek viewing platform collapse, in which 14 people died, is a **tour de force** of investigative work into the many systemic failures involved in that case. Now that robust systems are in place, viewing platforms in New Zealand are a lot safer, and nobody had to be blamed for anything; the problem arose from errors committed in good faith within a somewhat dysfunctional system and not from deliberate violations.

The lessons learned

Errors will continue to be committed in good faith. If there are enough of them, accidents will continue to happen and people will continue to die in them. We can't stop this from happening but what we can—and must—do is stop the same accidents from repeating themselves, and make the other accidents so rare that we may never see one in our lifetimes. A major component of this task is building and improving on error-resistant and error-tolerant systems, and a small segment of society remains



Above: Mount Erebus.

ALPA View

New Zealand Airline Pilots' Association's News and Views

working continuously at this task. The remainder keeps itself busy with continual caterwauling and finger-pointing over who to blame—or exonerate from blame, as the case may be—when the unthinkable happens.

Collins may have had the statutory responsibility for this flight, but hiding behind that has never been good enough; too many lives at stake require that accident prevention be everyone's responsibility. However, the "command responsibility" advocates have always had difficulty in understanding that. If that is so, then instead of simply repeating their position and leaving it at that, perhaps it is time for them to do some real work on their case. They could start by taking a leaf out of the Air Line Pilots' Association's book and the crews' families' book by petitioning Parliament. Maybe they can have the Mahon Report struck from the official record that way. But that seems too hard. Far easier for them to just get the soapbox out.

Here's an idea: allow the Chippindale and Mahon reports to stand together. Together, they not only cover the issues, but also compensate for each other's weaknesses. While we're at it, let's focus our energies on improving safety systems instead of fixating on finding people to blame.

Thus we may find ourselves wondering, not whether exoneration for Collins and his crew is appropriate, but whether, in fact, it is even relevant. PW

Captain Gary Parata is an airline pilot and flight instructor with 14,000 hours of flight experience. He is an accredited air accident investigator and flight recorder specialist with the New Zealand Air Line Pilots' Association and International Federation of Air Line Pilots' Associations. He is also a member of the International Society of Air Safety Investigators. He lectures to aviation and other professional groups worldwide on safety management, and currently represents the interests of the world's airline pilots on both the Accident Investigation Group and the Flight Recorder Panel of the International Civil Aviation Organisation. He lives in Mt. Maunganui. The opinions expressed in this article are his own and may not entirely reflect those of the organisations he represents.

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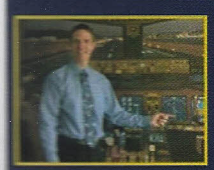

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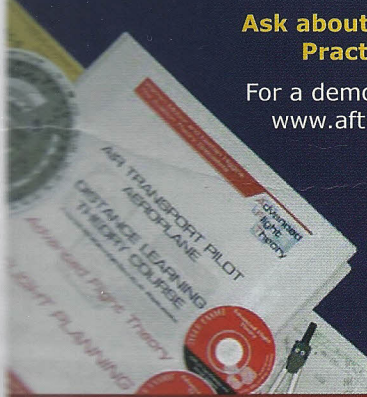

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