25. Diagnosis and remedies

No contemporary report places the Prime Minister’s assistant private secretary Peter Looker either at the crash scene or the morgue on 13 August 1940. If he accompanied his senior colleague Corby Tritton from the Prime Minister’s office, or his friends Percy Hayter or Murray Tyrrell, to view the bodies, his presence was not recorded. Perhaps he went later and separately. In any event, his testimony that ‘somebody was flying the aircraft who shouldn’t be flying it’ is powerful evidence of what was believed at the highest levels of government. No-one could be sure precisely what had happened. But for those in the Air Force with responsibilities for the safety of pilots and their crews it had to be assumed, and be seen to be assumed, that it was one of their own in command at the time of the accident.

Whatever unexpressed doubts simmered in George Jones’s mind about who was responsible for a fatal error of judgment on August 13, it was incumbent upon him as the Director of Training to provide trustworthy guidance to other pilots. No matter who had been at fault, the fact was that a new aircraft, some hundreds of which were to be allocated to squadrons, had fallen out of the sky. Many of the most experienced pilots and engineers in the Service had cogitated and debated why this had happened. The sum of their thinking, distilled into systematically presented advice, might save lives in future.

Justice Lowe had reported to the Governor-General on September 5. Fifteen days later, Air Force Confidential Order 79 was issued to draw attention to the stalling characteristics of the Hudson aircraft. There was no gilding the presentation for the Air Court or the public. With flaps down 100 per cent, undercarriage down, and power off, there was, according to Confidential Order 79, nothing to worry about. With power on, it was a different story: ‘Very little warning is given. The stall is sudden and the wing drops quickly.’ The severity of the stall would depend on the amount of engine power used and the weight of the aircraft: the greater the engine power and weight, the ‘more vicious’ the stall. If flaps were down 40 per cent, the tail would become heavy. With 40 per cent to 100 per cent flaps down, the nose would become increasingly heavy. But, pilots were assured, this nose and tail heaviness was ‘easily controlled.’

There is no difficulty or problem in putting the engine on if undershooting, or if it is necessary to make another circuit. The precautions necessary are to avoid letting the nose rise too soon and to avoid raising the flaps until sufficient speed and height is obtained. There is no difficulty in holding the nose down, and when the flaps are operated, change of trim is easily controlled.
The danger that could arise in putting the power on was when the aircraft was ‘already stalled to a marked degree, without power on, near the ground.’ What would happen if the power was put on? The stall would change from a gentle stall without power to a sudden stall with power. It all sounded rather elementary. But, just in case the message was not clear, the point was reiterated: ‘The stalling speed with power on is less than that with power off, so that recovery from the stall can be effected by putting the power on provided the nose is definitely put down first.’

Such was the simplified practical advice. On the same day, the Air Board issued generic instructions on ‘Powered Approaches in Modern Monoplanes’. A number of accidents had occurred ‘both by day and night’, because of powered approaches being carried out in ‘an incorrect manner’. Referring back to the detailed ‘Flying Instruction — Approaching and Landing’, distributed in late April, the Air Board reiterated that ‘it should be seen that the engine is used for the purpose of augmenting the pilot’s judgment and countering unforeseen difficulties, and not with the object of low flying on considerable power during the approach’.

‘The moral…always have fair margin above stalling speed’

For those who wanted a deeper understanding of what had happened on August 13 there was an ‘Informative Circular’ forwarded on September 28 by F. J. Mulrooney, Secretary of the Air Board, to Air Commodore W. H. Anderson, the Air Member for Personnel. The circumstances of the crash were summarised and 10 possible causes of the stall were examined. The analysis, ‘for the information of pilots’, was to be placed in all Unit Confidential Order Books. It was set out in two columns. On the left were listed ‘Factors which may have contributed towards causing the aircraft to stall.’ In the adjacent column was ‘Comment as to the probability or otherwise, of these factors contributing to the stall.’

The first concern was that the aircraft was heavily loaded. The drivers who had brought the passengers to Essendon had estimated the weight of the luggage they carried, producing an average of 47 lbs per passenger. But the pilot of A16-97 had known this, and had previously flown other HUDSONS with a full bomb load. In addition, as Bob Hitchcock’s log shows, on 22 July 1940 he had taken up HUDSON A16-32 with a second pilot and nine other men for ‘full load

---

flying’. The all-up weight of A16-97 as it approached Canberra was assessed as 17 500 lbs — heavy, but well below the maximum permissible all-up weight of 18 500 lbs.

What, then, if the load was not properly distributed, tending to make the aircraft tail heavy? Here the answer was both factual and hypothetical. The pilot had discussed the trim of this aircraft with another pilot and was warned against placing all the luggage in the rear. ‘If the disposition of the load were such as to affect adversely the trim, the pilot could have easily arranged to have the luggage moved during the flight prior to landing.’ Could have. But as ‘Dad’ Bladin, Director of Operations and Intelligence, had commented a month earlier: ‘There is little evidence that the pilot worked out his load disposition.’ The Informative Circular concluded less prejudicially: ‘nothing is known of how the luggage was actually stowed’.

The Service Court of Inquiry had recommended that a weight sheet summary be issued, and this had quickly been done. As for bad dispositions of load, the Librascope ‘balance computor’ was the appropriate instrument. The first model had been designed a few years earlier in Burbank California for the Douglas DC-3 and the Lockheed 14, the Hudson’s civil precursor. Using it was easy, ‘Dad’ Bladin had said, but it was for the Director of Equipment to ensure that they were issued to squadrons: ‘Can the D. of E. say that a librascope is available in every Hudson unit?’ As Bladin would have known, the purchase of five librascopes, one for each station where there were to be Hudsons, had received ministerial approval in September 1939. But there were in fact only three in the country, at Richmond, Darwin, and Pearce, and two with No.1 and No. 8 Squadrons in Singapore. The instrument could not have been used by Hitchcock and Wiesener in A16-97. What would now become standard practice with a ‘centre of gravity calculator’ was described by Deryck Kingwell:

Before each flight the location and weight of all sections of the load, including fuel, aircrew, ammunition, guns, bombs, plus anything else placed into the fuselage had to be set on this calculator which gave an indication of the centre of gravity that resulted from that load. Unless the pointer pointed in the green area, the load had to be adjusted either fore or aft until it did so. The calculator also read off the take-off speed, length of take-off run, approach speed and landing speed for that particular load. Movement of load during these phases was very critical and everyone was warned of this feature.

6 ACdre D. W. Kingwell to CH, 18 April 1979.
If weight and centre of gravity were problematic the fuel tanks also had to be a concern. The petrol in the rear tanks had not been used first. Would it have made a difference if it had? Some people thought so. It was not standard practice to empty the rear tanks first. But in discussion about the trim of the aircraft it had been suggested by another unnamed pilot, probably Jack Ryland, to A16-97’s pilot (Hitchcock was never named in the document) that to do so would improve the trim for landing.

Then there was the question of the flaps. The starboard flap was found pushed back ‘to 80% of its total travel’. The absence of the last 20 per cent of the travel would have had a significant effect on lift and drag. But no-one could rule out the possibility that the flaps had been pushed back when the aircraft hit the ground. Similarly, the possibility was considered that the engine cooling gills, which had been found open, could have increased the air flow over the flapped section of the wing. Again it was suggested, though some were unpersuaded, that the gills could have been closed until thrown open by the impact.

Experienced observers had consistently reported that the aircraft was flying slower than is usual for similar aircraft. Generally, estimates of the speed of aircraft in the air were thought to be erroneous because of the complex effect on perception of wind, height, and distance. In this event, however, the key RAAF observers were all familiar with the Hudson in flight and their impressions were remarkably uniform. What none of the investigators and headquarters analysts fully appreciated was that it was not just estimates of speed that could be unreliable. It was another two years before RAAF authorities were confronted by irrefutable evidence that the observations of even the most expert of eye-witnesses like Jack Ryland could be seriously defective. The crash of A16-38 at Bairnsdale in full view of a party of senior officers, including Bob Hitchcock’s former CO Bob Dalton (now a Group Captain and CO of No. 3 Bombing and Gunnery School), journalists, and Movietone and Cinesound cameramen, was the turning point. As Ryland and Doug Candy, both by then Wing Commanders leading No. 1 Operational Training Unit, conceded, what they and others thought they had seen was irreconcilable. An accurate reconstruction of events was impossible until the Court viewed the Cinesound film of the stricken Hudson aircraft falling to the ground. Some evidence from ‘senior and highly trained personnel’ was ‘completely at variance with the facts’ established by the film. The Court of Inquiry therefore recommended:

In future Courts of Inquiry into flying accidents the evidence of eye witnesses be accepted with reservation. While their sincerity is not questioned, events have proved that most experienced officers have been unable to assimilate the true sequence of events and give an accurate description.7

Whether or not human observations could be relied upon, there were ascertainable realities to be considered. Perhaps the fact that the Canberra aerodrome was approximately 2000 feet above sea level could have caused difficulty? It would be necessary to ensure that the angle of the approach was such as to maintain the required air speed: the angle or, as one reader interpolated in the margin of his copy, the power used. It was noted that the pilot had landed at Canberra before, and had specifically discussed this point with another pilot who had landed the same aircraft in Canberra under similar conditions (presumably Flying Officer Bill Heath who had flown up on August 5). By implication, ignorance of the locality could be ruled out. Forgetfulness would have been another matter.

A question had been raised about the possible effect of wind. After a landing scare at No. 14 Squadron in June it had been decided that the effects of wind gradient needed to be explained to all pilots. Over the Canberra hills on August 13 a wind estimated at about 15 miles an hour was blowing. At least one senior officer wondered if the crash was on the lee side of the hill, which could have meant that the aircraft experienced a ‘down current’. The expert consensus, however, was that it was probable (not just possible) that the aircraft received an upward ‘bump under the starboard wing’. To correct the effects of a bump it would be necessary to use considerable aileron when flying slowly. If aileron were applied there would be additional drag. Eye-witnesses had reported that the port wing had gone down, as it would have if there had been a bump under the starboard wing. The natural reaction of the pilot in these circumstances would have been ‘to endeavour to correct this by application of ailerons’.

Finally, it was conjectured, if the port wing had been down ‘to a marked degree for quite a period’, the aircraft would side-slip, thereby detracting from the effect of the flaps on the lift of the aircraft. It was true that the wing was observed to be down for ‘an appreciable time (2–3 seconds)’ before dropping further, with the nose going down and the aircraft turning to the left. But, as those who had read some of the eye-witness accounts knew, side-slip had not been noticed.

What could be concluded from this discussion? No single cause could be determined. It was ‘possible’ that all of the factors mentioned were ‘present together at the critical moment, and that their combined effect was to cause the pilot to lose control and the aircraft to stall’. It was ‘highly probable’ that several of the factors were present and that the cumulative effect could have caused the aircraft ‘to stall under adverse conditions, viz., with flaps down and power on.’ ‘The moral,’ as one senior officer wrote at the bottom of the last page, ‘— always have fair margin above stalling speed (i.e. do not sail too close to it until flattened and within a few feet of ground).’
The moral was one that would have come as no surprise to anyone who had been converted to the Hudson at Richmond. Wing Commander Lloyd A. ‘Smokey’ Douglas’s considered view was that this was a lesson already learned there. Lloyd Douglas, who was a 21-year-old when he knew Dick Wiesener, believed that the Richmond alumni who had the benefit of both KLM and Lockheed knowledge were the best Hudson pilots in the world. Dallas Scott, who undertook Hudson conversions for No. 2 Squadron while waiting for No. 7 Squadron to receive its own Hudsons, was ‘a tremendous bloke’ Douglas averred; but he had taught pilots to fly too slowly on approach and take-off. If this were so, it would have been odd in view of Scott’s previous experience of Lockheed 14 Super Electras with Guinea Airways. Was Douglas, like so many others who cast their minds back to their adventurous youth, echoing a friendly wartime rivalry between Laverton and Richmond? Certainly he was too modest to mention that he had himself managed a successful forced landing with wheels up on 30 May 1940 when both engines of Hudson A16-54 failed 15 miles north of Junee.

‘Curly’ Brydon, like Dallas Scott a Melbourne Grammar boy, had presented himself for enlistment at the age of 18 years and five months on the day after Britain and France declared war on Germany. By 1944, he was a squadron leader with a DFC and bar. Thinking back to his 550 hours as a captain of Hudsons in No. 6 and No. 1 Squadrons he was also inclined to see the fault less in the machine than in the training of the pilots. He made no exception for those who instructed at Richmond, where he had been posted as a pilot officer in March 1940:

In the early days of conversion the standard instruction from such famous aviators as Swede Parker, Alec Barlow, Pat Hall, Dallas Scott and others was ‘Don’t apply flap until you are on final’. This probably caused more prangs than saves, specially when turning into the final leg when speed was necessarily low and the aircraft close to the stall. I can remember having a heated argument with a pilot senior to me in Singapore about this.

Neither Douglas nor Brydon may have known that Hitchcock’s instructor had been Jack Ryland, familiar as an Ansett Airlines pilot with the Lockheed 12, converted to the Hudson by Swede Parker, but with hundreds of hours since then on the new type.

---

10 A. H. Brydon to CH, 4 April 1978. Brydon was appraised by his CO WCdr Nicky Barr in 1945 as having ‘a tendency to be radical in his outlook, & occasionally his verbosity outweighs the amount of action required’ (NAA: A9300, BRYDON AH). The verbosity may have reflected his brief experience as a radio announcer (Herbert C. Plenty, *Singapore Slip*, Len Books, Canberra, 1990, p.163).
What the ‘Informative Circular’ inadvertently proved to anyone who read it was that Bob Hitchcock had been cautious in preparing for the flight. He had sought advice from at least one of his fellow pilots on matters about which he was uncertain. It was possible that he had not paid sufficient attention to the load and its disposition. But the circular’s concluding reference to ‘adverse conditions’ signalled a subtle rejection of the damning and poorly justified findings of ‘pilot error’. Among those who bore responsibility for Hitchcock’s steady promotion and progress into positions that tested his ability and temperament were some who were now aware of the likelihood that his control of A16-97 could have been compromised. If there were limits to the public exploration of the truth, at least these senior men of repute could avoid giving professional endorsement to what they knew or strongly suspected to be false.

The circular was distributed across the country to Area Headquarters in Sydney and Melbourne; multiple copies to RAAF stations at Amberley, Archerfield, Richmond, Rathmines, Laverton, Pearce, Darwin, and Canberra, and No. 1 Service Flying Training School at Point Cook; and single copies to every squadron overseas, elementary flying training schools, the Central Flying School, engineering schools, wireless air gunner and bombing and gunnery schools, stores depots, recruiting centres, every directorate, and even the Central War Room. Thereafter it was for instructors, already ‘converted’ senior pilots, and those just qualified, to teach and learn as best they could.

**Politics and Purvis**

While the Air Force was moving to advance understanding of the Hudson and improve flying safety, their political masters were preoccupied with a federal election campaign. The election, held on September 21, resulted in the UAP winning 23 seats and their Country Party coalition partners 13; the ALP won 32 and Lang Labor had four. Two independents held the balance of power. Over the next five weeks, the Prime Minister tried in vain to persuade Labor to join an all-party coalition government. After further upheavals in the Country Party, a refreshed coalition was formed on October 28. Arthur Fadden, now ‘Acting Leader’ of the Country Party, became Treasurer and was succeeded as Air Minister by John McEwen.

When the well-connected *Aircraft* magazine came out in November 1940, it commented on the report of what it pointedly called the ‘partly public’ Lowe inquiry. ‘The report is highly satisfactory in that it should end the silly rumors [sic] that followed the accident — rumors of sabotage, and of someone other than the pilot making the approach to land.’ Herbert Storey’s story, or stories like it from those who had been at the scene of the crash, were already it seems
common knowledge in the aviation community. Lowe’s dismissive comments had the desired effect. It was now legitimate to characterise as ‘silly’ the notion that anyone other than Bob Hitchcock was responsible for the crash. Noting that not all the evidence was heard in public, *Aircraft* found it ‘particularly interesting’ that the report recommended more training for pilots going on to the new machines. ‘This is surely an implication that evidence showed some pilots have not had enough experience before being passed out on the type, although in view of the times quoted, this could not have been the case with this particular pilot.’

*Aircraft* had been beaten to the punch by a more sensational rival, *The Air-Log*. In its September edition *Air-Log* had already reported the opinions of unnamed Dutch captains that they considered themselves ‘capable of all the answers’ on the Lockheed 14 only after 400 hours: ‘it amounts almost to criminal negligence for Authority to allow a comparative tyro in the handling of such craft to fly them without an expert supervisor aboard and in the second dickey[seat]’. It was not publicly known that the Director-General of Civil Aviation had provided information for the Inquest that a civil pilot of a large commercial aircraft ‘is required by company regulations to have 3000 hours flying experience and 200 hours as second officer in the type of aircraft before being allowed to take charge as first pilot’. *Air-Log* took the opportunity to remind readers that, a year earlier, it had championed the invention of a Sydney man, Clive Murray-Waller, the C. M. W. Stall Indicator. ‘A stall indicator would probably have saved all’, but the device had been rejected by the Air Board as unnecessary. A month later, referring to Lowe’s report — ‘quiet judicial verbiage almost soft-pedalling in spots’ — handed to federal Cabinet on October 9, *Air-Log* returned to the C. M. W. Stall Indicator. The Air Minister should, they suggested, convene a meeting of technical experts to provide full disclosure of the Air Board’s actions.11

The Minister had some questions of his own. Artie Fadden had noticed in particular the three ‘riders’ to Justice Lowe’s findings. On October 11, in formally transmitting a copy of Lowe’s report and evidence together with the report of the Inspector of Air Accidents, to the Chief of the Air Staff via the Secretary of the Air Board, he asked for comments on Lowe’s observations. What action was proposed to be taken about them? Apparently no-one had thought to inform Fadden of the ‘Informative Circular’ or of other action in train to issue amplified instruction on stalling and recovery for pilots undergoing conversion to Hudsons. Someone did, however, think to leak the Minister’s minute to the *Herald*, where it was reproduced, to the Chief of the Air Staff’s gall, ‘practically verbatim’.12

Advice reached the Air Member for Personnel for submission to the CAS, Secretary, and Minister for Air on October 25. Evidently Fadden had touched the nerve Lowe had exposed:

With regard to pilots having the widest possible background of experience before being converted to Hudsons, it is desired to point out that this has always been given careful attention. All pilots who were formerly employed in Civil Aviation on modern multi-engined types of aircraft have, where the exigencies of the Service permit, been employed on aircraft such as the Lockheed Hudson. The problem has been to make the best use of all the pilots available with due regard to the many commitments which the Service now has to face. All Service pilots are now gaining experience at a very rapid rate and special efforts are being made to shield as many operational units as possible from posting action consequent upon the formation of new training schools.

In what was tantamount to an admission that there had been serious shortcomings in the training and posting of Hudson pilots, the briefing disclosed that a ‘highly qualified pilot who has had a great deal of experience in modern multi-engined type aircraft has now been appointed to visit all Hudson Units in turn to check the flying of pilots engaged on this type, and to report to this Head-Quarters concerning each individual’. It was intended that this unnamed officer would continue to supervise Hudson flying ‘until the Squadron Leaders and the Flight Commanders and all…’ The next page of the document is missing from the file. But a handwritten note in the margin identifies the unnamed ‘highly qualified pilot’ as F/Lt Purvis.13

The advice to the Minister was more important for what it apparently did not say than for what it did. Flight Lieutenant Harry Purvis’s story epitomised much of what was wrong with the RAAF as it stutteringly came to terms with the massive expansion that wartime demanded. Purvis, born in 1909, was a ticketed mechanical engineer who had been a barnstorming pilot and mechanic with Kingsford-Smith in the early 1930s. He had done geophysical survey work in Western Australia and Queensland in the Southern Cross, operated aerial services in western New South Wales, flown with Cliff Carpenter’s Flying Circus, captained Airlines of Australia airmail flights between Sydney, Brisbane, and Cairns, and flown regular passenger services between Sydney and Melbourne, Adelaide and Darwin. Most relevantly, he had been hired by Royal Netherlands Indies Airways (KNILM) in 1939 and trained to their exacting standards to fly the airline’s Lockheed 14s. During a year’s leave from ANA, he flew the Lockheed 14s regularly from the Dutch East Indies to Darwin and then to Sydney.

13 NAA: A705, 32/10/2729/7.
The absence of Purvis’s name in the briefing note, or of any reference to his experience with the Dutch airline, might be explained as bureaucratic economy of words. Or perhaps it might have been thought that, as far as the Minister was concerned, the identity of the officer and his background were unimportant details. But such was the speculation and questioning of the RAAF’s training regime, the Air Board could well have been tempted to preserve Purvis’s anonymity. They would not be enthusiastic about an inquisitive minister getting too close to him. The man anointed as the expert best able to remedy detectable deficiencies in every Hudson pilot’s capability could reveal some uncomfortable truths. There was a chance that Artie Fadden actually knew Purvis, once an outsider but now inside the Service fold. His departure with Keith Virtue to join KNILM in 1939 had been deplored by the press as ‘a sad reflection on the Commonwealth’s air development’. If the Minister had occasion to talk to the ‘crack pilot’ now charged with checking every Hudson pilot in the country, what would he discover?

Harry Purvis had returned to Australia immediately on hearing of the outbreak of war. When he reported to the RAAF Director of Recruiting, Harry Cobby, he learned of the order for 100 Husdons, the military version of the Lockheed 14s he had been flying. Cobby told him he would be called when he was needed. Six months elapsed. Purvis knew that there was ‘reserve and resentment felt by the upper-ranking RAAF officers who had to be converted by civil airline pilots to modern types of aircraft, like the DC-3s (wartime Dakotas) and the Lockheed Husdons that were just arriving’. But when the Husdons started to be assembled the RAAF had no choice. In March 1940 Purvis was one of six former civilian pilots called to Richmond. No-one in the RAAF had comparable experience of the new generation of aircraft with variable pitch propellers, super-charged engines, retractable undercarriages, and flaps. With Pat Hall, Alec Barlow and Harold Cook from ANA, Jack Ryland, and Dallas Scott from Guinea Airways, he joined Squadron Leader R. H. ‘Bertie’ Simms in the team that was to lead the conversions. Each was posted to a different squadron. They put on a display over Sydney and Richmond, and four of them flew to Perth and back in 11 hours 15 minutes, the longest one-day flight in Australia, to demonstrate the value of the new machines.

Purvis was then despatched to Darwin where Bob Hitchcock’s former CO, ‘Moth’ Eaton, had two squadrons under his command. There he trained seven enthusiastic young flying officers and pilot officers before moving on to Perth, where he had a frightening take-off with an inexperienced pilot who stalled at 800 feet:

I was appalled to find myself an unwilling passenger in a pre-dawn take-off…in a Lockheed not equipped with dual controls, with a young pilot…whom I knew could not handle the aircraft under the conditions.
I'd expressed doubts as to his experience to his squadron commander but was told I was no longer an airline captain, merely a flight lieutenant in the Air Force and must accept decisions.

With a ‘very high ranking naval officer’ among a full passenger load, an anxious Purvis positioned himself behind the pilot. It was fortunate that he did. As the aircraft plummeted towards the ground he stretched over the pilot’s shoulder, seized the control column, and pulled out of the dive just as they clipped the top of a gum tree. So serious a breach of regulations was Purvis’s action that he was close to being formally censured for presuming to wrest command from the pilot.

Purvis’s difficulties did not end there. As the ‘highly qualified’ pilot now designated Chief Instructor for Hudsons, he was based at the Central Flying School at Camden with a roving commission covering every squadron:

With memories of the Perth incident and the Canberra disaster still fresh, I drew up and sent to all squadron commanders a syllabus which included blind take-offs, asymmetric (single-engine) flying immediately after take-off, and a general tightening up of training methods. I finally managed to push it through against tremendous resistance.14

The RAAF was fortunate in Purvis — ‘a solid kind of man whose adrenalin flowed quietly’, as one contemporary remembered him.15 Things gradually got better as the men whom Purvis, and others like Ryland and Garrett, had trained began to pass on what they knew. Garrett himself was checked by Purvis three weeks after the crash.16 Among those who gracefully accepted instruction from Purvis on asymmetric flying was the Qantas pioneer Scotty Allan, who years later was to recall the Hudson’s ‘tricky qualities’. A particular concern Allan remembered was the general lack of confidence in flying Hudsons after dark. ‘A Lockheed pilot was stationed at Richmond N. S. W. and he would not fly it at night.’17 Nor at first would Harry Purvis or the brilliant Pat Hall, wisely in Hall’s case as it turned out that he was colour blind and had to be restricted to daytime flying. It is notable that Garrett’s certification as a first pilot for night flying of Hudsons took effect from the time of the check with Purvis. As the months passed, Purvis himself revisited pilots he had checked. ‘Tich’ McFarlane, re-reading his log book years later, was struck by the number of times that Purvis took him up. McFarlane had originally done 10 hours dual on the Hudson, and he had the ‘genius’ Pat Hall with him at Richmond. Notwithstanding these

14 Purvis with Priest, Outback Airman, pp.94–101.
15 Balfe, War Without Glory, p.203.
16 Garrett’s Flying Log Book, 5 Sept. 1940, Garrett MSS.
17 G. U. Allan to CH, 24 June 1982. A decade after his correspondence with me, Allan evidently told his autobiographical collaborator that the Hudson ‘didn’t have any tricks’ (G. U. Allan with Elizabeth Shearman, Scotty Allan: Australia’s Flying Scotsman, Clarion, Balmain, 1992, p.131).
advantages, he saw Purvis at three-monthly intervals in the year or so he was with No. 6 Squadron. It was evidence, he thought, of the concern and care then being taken by the Service.\(^{18}\)

The care and concern were warranted. It was not just the Canberra accident that led to it. The unexplained loss at sea of Hudson A16-27, the day before A16-97 went down, had prompted a search to pinpoint administrative failings and people to blame. George Jones had lit the fuse in qualifying the Court of Inquiry’s finding that the loss could not be attributed to any ‘person or persons now living’. The inquiry, the Director of Training said, had revealed a ‘lack of supervision and control’ by both the squadron and station commanders at Archerfield. Director of Personal Services Joe Hewitt concurred. DCAS Bill Bostock summarised: ‘direct disobedience of orders’ (the aircraft was sent over the sea without life jackets for the crew); grave negligence (the aircraft was not equipped with a rubber inflatable boat); unauthorised carriage of supernumerary crew; and lack of initiative by the squadron and base commander when the aircraft was overdue and known to have wireless telegraphy failure. There could of course be no evidence of structural defect or mechanical malfunction. Nor was there any evidence to support the widespread conviction that the accident had been caused by the flap lever being inadvertently knocked into the down position while the aircraft was flying at high speed. As the Service Court drily concluded: ‘many of the people who hold this theory do not know exactly where the flap lever is situated in a Hudson, and very few have ever operated it’.

Should a guard be erected over the flap lever to prevent this kind of accident? No, they said: ‘since modern aircraft, being an inherently complicated and delicate mechanism, must be treated as such, and no amount of fool-proofing can counteract the effects of carelessness or lack of experience’.\(^{19}\)

In the aftermath of A16-97’s crash, however, there were further technical matters to be resolved. Rider 3 of the Air Force Court of Inquiry’s findings had drawn attention to the method of attaching end fittings to cables. ‘Del’ Wilson had vigorously pursued the suspicion that the cable controlling the flaps might pull out of its fitting. Ernie Hey had valiantly sought to provide advice. The public had learned that secret evidence had been taken on this point. This was the Director of Technical Services’ domain. Group Captain E. C. Wackett had been in North America at the time of the crash on a special assignment to assess what possible equipment of value to the RAAF could be secured as a result of the collapse of France. He returned to Melbourne at the end of September:

---

\(^{18}\) A. B. McFarlane, interviews, 18, 21 April 1978; Balfe, *War Without Glory*, pp.207–8 for Pat Hall’s briefing No. 36 Squadron in Dec. 1942 to watch out for a power-on stall that ‘put Bob Hitchcock in at Canberra’.

\(^{19}\) ‘Proceedings Court of Inquiry Hudson A16-27 Lost at Sea August 12th 1940’ and related minutes, NAA: A705, 32/10/2830.
The possibility of one flap retracting and the other remaining down, has been examined by the Director of Technical Services who reports that the method of swaging the end fitting to the cable has been carefully investigated by the Air Ministry and approved for the Hudson. It appears that after extensive tests, the method was found to be satisfactory under all conditions, and that in no instance could the cable be made to pull out of the fitting. As the only way in which the flaps could operate independently would be through a cable breaking, it was considered by the officers who investigated the accident that failure in this respect was most improbable.

By the time the response was prepared and approved there was a coalition government in prospect, and another new Minister for Air. Jack McEwen took up his new duties on October 28. The accident file was one of the first to reach his desk. His ‘Seen JMce’ was the prudent annotation of a man too canny to indicate he was actually satisfied with what he had read. The ambitious McEwen was not a minister to be trifled with. Seven weeks later, infuriated at learning of a sequence of events from the press, he demanded from the Chief of the Air Staff an assurance that ‘proper provision be made, and effect given to it, for informing me promptly and officially of any serious incidents or operational activities of the R.A.A.F. of an important character’. It had not improved McEwen’s temper to be told by the head of the Parliament House switchboard, after a long delay in contacting Air Commodore Anderson, that ‘it was an experience stretching back to Mr Fairbairn’s day for it to take as long as an hour to raise Area Headquarters, Sydney’.

Training challenges

Sturdily constructed, with reliable engines, as David Colquhoun would attest, the Hudson was, ‘when one became used to it, a delight to fly’. The trick was to stay alive long enough to become used to it. Bland reports by the Deputy Chief

20 Minute by GpCpt. E. C. Wackett, 17 Oct 1940: WCdr L. R. S. Freestone to D.T., 24 Oct. 1940, forwarded by A/g DCAS Bladin to CAS Burnett, thence to Minister, 1 Nov. 1940, NAA: A705, 32/10/1729/5–7; On 30 Nov. 1940 Wackett issued Hudson Instruction No. 10 advising that the efficiency of the swaged ends of the control cables had been investigated and that the blob of solder on the cables that had pre-occupied the Lowe inquiry was to be ignored as an indicator of movement (NAA: A705, 150/4/948); AVM E. C. Wackett to CH, 3 Oct. 1977.

21 NAA: A1196, 60/501/38; AA1977/635. Installation of four additional automatic telephone lines in May had ameliorated delays in the Century Building exchange. But that did nothing to solve the problem of unanswered telephones or the barely credible arrangements at Air Force HQ thrown into relief by a duty staff officer’s plaintive comment in Feb. 1940: ‘It is pointed out that an up to date list of addresses & telephone numbers of officers on the staff of Air Force HQ might reasonably be supplied to Duty Staff Officers.’ Six weeks later, nothing had been done (NAA: A705, 87/4/813). Eric Windsor, the senior Essendon Air Radio technician, complained to a Court of Inquiry in June 1940 of ‘considerable difficulty’ always experienced in telephoning Pt Cook and Laverton because of the lines being ‘engaged’ (NAA: A11094, 72/1/44).
of the Air Staff to the War Cabinet at the end of August 1940 conveyed truthfully that three Hudsons had been written off and three were under repair. But in what appears to have been a breathtakingly risky half-truth Bostock reportedly advised that ‘instruction of pilots for the flying of Lockheed Hudson aircraft was in the hands of civil instructors, who were fully experienced in flying this type of aircraft’. Hard as it might have been for Bostock to admit that the RAAF needed civilian help, it at least displaced some of the responsibility for any training shortcomings. The shortage of experienced Hudson pilots was not going to be solved in a hurry. The Court of Inquiry into the loss at sea of A16-27 the day before A16-97 crashed would lament that the squadron commander at Archerfield had not undergone a Hudson conversion and was not in a position to exercise any technical supervision over the handling of the aircraft by his junior officers. Moreover, as Squadron Leader Stuart Campbell and his inquiry associates reminded their superiors:

The Press are continually comparing the ability of Service and Air Line pilots, mostly in terms unfavourable to the former. Though their criticisms are frequently of a somewhat hysterical nature, there is one factor usually overlooked, which, if realised, would lend considerable weight to their arguments. This factor is that there is no Commercial Operating Company in the world that would employ, as Captain of a Lockheed Hudson 14, a pilot with only 500 hours flying experience.

George Jones would respond ruefully late in January 1941: ‘It has not been possible to select pilots with a minimum of 500 hours’ flying before conversion to Hudson aircraft.’ Hudsons continued to populate the flying accident tables. On 7 September 1940, a Hudson from Darwin piloted by Bob Hitchcock’s No. 2 Squadron contemporary Jack Sharp, now with No. 13 Squadron, crashed while taking off from Broome aerodrome. The aircraft caught fire and all but the starboard mainplane and tail unit was destroyed. The crew were uninjured. But Sharp was blamed for losing control and was called on to contribute £10 towards the cost of the loss. ‘Inexperience and poor technique’ explained why Pilot Officer Graham Gibson of No. 21 Squadron flew heavily into the ground while attempting to land after his first solo on September 19. An error of judgment by Flight Lieutenant H. A. (Bob) Nicholas accounted for the damage done to A16-10 of No. 13 Squadron at Darwin on New Year’s Eve 1940 when it bounced on landing, tipped on its nose, hit the ground and turned through 180 degrees after the starboard wing stalled when the engine power was put on.

23 NAA: A705, 32/10/2830.
24 NAA: A9845, 134,135.
25 ‘Flying Accidents Analysis of 1940’, NAA: A705, 12/10/2478. Gibson, employed as a second pilot until he had more experience, was killed in action in New Britain in Feb. 1942.
Overseas crashes were also noticed. Six months after the Canberra disaster, an hour after leaving Gander in Newfoundland en route to England, a Hudson bearing Frederick Banting, the co-discoverer of insulin, crash-landed on an ice-covered lake. The pilot and Banting survived the crash but Banting died shortly after. He had been on the way to the UK to undertake research on how airmen could best cope with faster and higher flight.\textsuperscript{27} As late as December 1944 there were echoes of the Canberra disaster when eight men died as A16-68 crashed on landing approach at Richmond.\textsuperscript{28}

Meanwhile, the Weekly Report of the Chief of the Air Staff carried summary notes on ‘aircraft casualties’. As experience was gathered, additional advice was forthcoming. At the beginning of October 1940 the Air Board disseminated information on flap settings. It had been established that ‘although the Lockheed Hudson aircraft is controllable on sudden application of engines, after a bad landing with up to 90\% of flap, there is a considerable nose down change of trim’. It was admitted that at 100 per cent flap setting the pitching moment ‘under certain circumstances may become uncontrollable’. The best results were to be obtained with 70 per cent flap setting. This was to be adopted as standard practice. (The RAF had already introduced rubber stop blocks on the guide rail that limited flap travel to 70 per cent.)\textsuperscript{29} During Hudson conversion courses, however, pilots were to be given experience with higher flap settings up to 100 per cent. Such settings might be applicable in an emergency.

What the Hudson required, David Colquhoun later contended, was ‘concentration and quick reaction, particularly on take-off when due to its short fuselage a swing could be induced easily’. Colquhoun had heard that the Americans in the Alaskan theatre had lost so many aircraft that they refused to fly them. That was, he believed, one of the reasons why they became available to Australia.\textsuperscript{30} This was a rumour without foundation. But it had become apparent by October 1940 that a ‘violent swing’ could result from the application of full rudder when brakes were being used during take-off. It was common practice to apply two or three notches of brake during the first part of take-off. The practice was now to be discontinued. What had been observed was that a pilot’s head would move when he let off the brake; his attention would be diverted from steering a straight course and the aircraft would be liable to swing. No such problem would normally be expected even in conditions of moderate cross-wind.\textsuperscript{31}

\textsuperscript{28} NAA: A9845, 135. An invaluable history of all RAAF Hudsons compiled by Gordon Birkett is at www.adf-serials.com/2a16.shtml.
\textsuperscript{29} Vincent, \textit{The RAAF Hudson Story}, Book One, p.298. It was noted in early 1942 that the rubber stop blocks had been installed in Mk III Hudsons [Vincent, \textit{The RAAF Hudson Story}, Book Two, p.250].
\textsuperscript{30} AC\textsuperscript{dre} D. W. Colquhoun to CH, 7 June 1978.
\textsuperscript{31} ABO N611, 4 Oct. 1940, NAA: AA 1977/635.
Almost all of those who flew Hudsons in 1940 were to recall its troublesome characteristics. Claude Browne was in one of the first groups to fly them. ‘They arrived,’ he remembered, ‘in crates at RAAF Richmond…when I was completing my intermediate course there.’ The machines were assembled, flight tested and put into squadron service as soon as ‘the then more senior pilots were converted onto them’. Posted to No. 8 Squadron in Canberra, Browne was soon at the controls as a second pilot. Eventually as captain, then as an instructor at No. 1 Operational Training Unit at Bairnsdale and East Sale, he accumulated some 4000 hours on the type. He added to his wartime experience the perspective gained in the mid-1950s as head of the Directorate of Flying Safety: ‘Even although only the more/most experienced pilots were posted to convert onto them, the Hudson represented a big step up from its predecessor (the Anson) which was under powered and viceless as regards its handling characteristics.’

The problem with the Hudson, as Browne saw it, was that it had a relatively high wing loading; its handling under asymmetric flight conditions (i.e. with one engine failed) was subject to critical limits. Also, ‘it had a rather vicious re-action if stalled under certain conditions of power, load and wheels/flaps up/down configurations; it could, depending on the circumstances, flick onto its back, or suddenly drop a wing or assume a steep nose down attitude.’  

What Spud Spurgeon, a Laverton contemporary of Hitchcock’s, who went on to No. 8 Squadron in Malaya, was to call ‘unpleasant recovery characteristics at low speeds’ were widely experienced. One of those at No. 2 Squadron who took very seriously the injunction about having a fair margin above stalling speed was Neville Hemsworth, a former commercial pilot. David Campbell, who testified that he owed his life to Hemsworth’s example of careful flying, nevertheless recalled how he rued being sent into the nose at every landing when Hemsworth was captain. There was a second air-speed indicator in the navigator’s perch which could be checked against the one in the cockpit. Campbell was reluctant to inflict this boring and uncomfortable task on others, and did not do so on his own second pilots.

While the challenges of the aeroplane itself were well established, there were other factors at work. Scotty Allan acknowledged a generational problem:

The suggestion that W. W. I. and pilots of the 1920’s had difficulty in handling aircraft of the late 1930’s is illustrated by Pan American whose system of promotion was based on length of service. Old pilots insisted

34 David Campbell, interview, 24 May 1978.
on their rights to fly the new aircraft with dire results. There were of course exceptions, but many pilots were quite unable to apply new techniques or even to recognise that new techniques were necessary.35

‘By a strange turn of events,’ Harry Purvis was to write, ‘I found myself having to check my old instructor, Scotty Allan, on asymmetric flying. He quickly put me at my ease and also indicated he approved the tighter training.’ With 9591 hours prior to enlisting on 4 September 1940, Allan had nothing to prove.36 Whatever the understanding or potential ability of individual pilots, it would not necessarily compensate for insufficient and inadequate training. Flying a Hudson was similar in many respects to flying an Anson, except in the ‘full flap’ ‘power on’ condition. As Air Commodore Derek Cuming, later to be the RAAF’s Chief Test Pilot and, in Sir Fred Scherger’s view, one of the six best pilots in the world, recalled: ‘In this condition of flight the aircraft could give a sharp wing drop at the stall and unless immediate correction was made it could roll nearly inverted.’ The prospect of this happening ‘did frighten some pilots’. And at less than 1000 feet a crash would be inevitable.

‘It must be borne in mind,’ Air Commodore Cuming cautioned in retrospect, ‘that in 1940, with the exception of a few, most pilots were very inexperienced in flying by the time they were put in charge of an aircraft such as the Hudson.’ In his own case, his total flying experience was 182 hours as pilot in charge and 250 hours as second pilot or navigator in various types of aircraft. Cuming, who had been posted to No. 2 Squadron for three weeks in June/July 1940, acknowledged that he had the advantage of instruction from Sam Balmer and Harry Purvis while flying with No. 13 Squadron in Darwin.37 Not everyone had been so lucky. As ‘Spud’ Spurgeon put it, the practice of making flight commanders responsible for supervising the conversion of their own pilots was ‘hazardous’. With few exceptions in August 1940 ‘real instructors did not then exist’. When he was posted to Singapore the week before the Canberra disaster his first pilot had 20 hours in the Hudson; he, as second pilot, had nine and a half hours.38 The situation was not greatly improved four months later when the Training Directorate pronounced after another (non-fatal) Hudson landing accident that: ‘Conversion courses should always be given by the most experienced pilot available, if necessary by the Squadron Commander himself, particularly in the case of Hudson aircraft.’39

36 Allan with Shearman, Scotty Allan, pp.130–2.
37 ACdre D. R. Cuming to CH, 17 April 1978; NAA: A12372, R/33012/P; ACM Sir F. Scherger, interview, 2 Sept. 1978; Vincent, The RAAF Hudson Story, Book One, p.300; Grantham, The 13 Squadron Story, for Purvis and J. R. Balmer and A16-8 with dual controls.
38 Spurgeon, telephone interview, 16 Nov. 1982.
Sir Norman Brearley, for whom Hitchcock’s father had worked, made no secret of what he thought of RAAF pilots. In 1940 he was commanding No. 5 Flying Training School: ‘My main reaction to the Hudson air crash was in the report of the enquiry. This stated that the pilot was an average R.A.A.F. pilot. To me this meant that he was much below the standard that I would employ.’

There is no doubt that the pressure to produce pilots placed unprecedented strain on the capacity of the RAAF. In May 1940 a large percentage increase in forced landings was attributed to lack of close supervision by flight and squadron commanders. Incomplete knowledge of the engine characteristics of particular types was one cause. The Director of Training was charged with reviewing syllabuses and recommending limits on the range of aerobatics to be taught and practised. The stretching sinews of the training establishment were exposed in a sequence of confidential orders in the months after the Canberra disaster. Less than four weeks had passed when a pilot and two pupils were killed in the crash of an Anson near Wagga. It was determined that the aircraft had become uncontrollable and broken up in a vertical dive after the instructor had indulged in a display of aerobatics, half-rolls, which he had promised to execute before going up. The pilot had ignored repeated warnings about overconfidence, ‘and his sense of discipline was not sufficiently developed to prevent a serious breach of orders’. The official reaction was a departure from the usual impersonal tone of the confidential orders:

> The bad effect on the Service due to loss of life and loss of aircraft which arose directly out of these shortcomings need not be stressed. A daring spirit is entirely commendable provided it is used in action against the enemy, but it must be accompanied by sufficient commonsense, loyalty to the Service and discipline generally to prevent such a waste of the limited resources available to the Service.

There was sensitivity about the extent to which the ‘daring spirit’ might be insufficiently tempered by discipline in individual squadrons. There was an echo here of the reaction to the Ellington report in 1938. ‘I can remember numerous occasions,’ the gallant AFC pilot and VC winner Frank McNamara had told Dicky Williams, ‘when many of us used to wonder whether we were sometimes not too severe in punishing some of these high-spirited lads by sending them up for court-martial, fining them a proportion of the cost of damage to aircraft, etc.’ Others might fairly have wondered whether there was not too much chummy tolerance of poor technique and ill-disciplined bravado. The fact was

---

40 Sir Norman Brearley to CH, 30 March 1982.
41 Chief of Air Staff Conference No. 35, 21 May 1940, NAA: AA1977/635.
that ‘over-keenness’ to show ‘daring and/or efficiency’ was endemic; even when an injunction to improve flying discipline was being circulated in May 1940 it was acknowledged by ‘Mucker’ Anderson that ‘this spirit has its value’.44

The necessary data

On 10 September 1940, Sir Charles Burnett told the War Cabinet that he would ‘shortly submit statistics showing the comparison of the ratio of casualties… since the war with the pre-war period’. This apparently spontaneous offer caught his principal subordinate unawares. ‘Have you the necy. data for this?’ the Deputy Chief of the Air Staff asked the Director of Training before remembering that protocol dictated the request should go via George Jones’s superior, the Air Member for Personnel. As it happened, at the CAS’s direct request, 25-year-old Squadron Leader Joshua McDonald in Jones’s directorate had prepared a day earlier a ‘summary of fatal accidents’ — 14 fatal accidents, with 40 people killed in the previous six months. There was also a table for the same period showing the number of fatal and non-fatal accidents per hours flown by each aircraft type. The numbers suggested that the Hudson was the most likely aircraft to be involved in fatal accidents and the least likely to be in non-fatal accidents. But no attempt was made to assess the meaning or significance of the data.45

The War Cabinet continued to gnaw at the accident rate. The CAS told them — not for the first time — about his Inspector of Air Accidents, appointed before the Canberra crash, and the legal officer to assist ‘in the interrogation of the persons concerned and witnesses’. Trainees were not being pushed on too quickly in their preliminary training, Burnett said. The ‘fullest possible use’ was being made of efficient civil pilots. The trouble was that the accidents were occurring at the stage in the trainees’ careers when they had ‘commenced to gain that degree of experience which easily led to over-confidence’. Fines were being imposed in cases of negligence.46

The more comprehensive information sought by Burnett was provided on October 10. In the 12 months before the war, there had been 39 672 hours flown and four ‘fatal accidents’. In ‘non-fatal’ accidents, nine aircraft had been totally lost, 20 needed more than a month to be repaired, and 83 more had suffered

44 NAA: A705, 231/8/7 Pt 1. ‘Members of a club are disinclined to criticise each other professionally, and it seems probable that a causal relationship existed between that comfortable atmosphere and the RAAF’s disturbing accident record’ (Alan Stephens, The Royal Australian Air Force, [The Centenary History of Defence vol. II], Oxford UP, South Melbourne, 2001, p.37).
45 WCdr McDonald, newly appointed CO of No. 13 Squadron at Laha, Ambon, in Dec. 1941, stalled his Hudson at 400 feet, spun into water and was killed [NAA: A9300, McDONALD JR; Johnston, Whispering Death, pp.110–1].
minor damage. In the 12 months of war, 93 864 hours had been flown; there were 11 fatal accidents. Twenty aircraft were lost in non-fatal accidents, 36 were out of action for more than a month, and another 274 made serviceable within a month. The tabulated data were in due course submitted to the War Cabinet over the signature of R. G. Menzies in his capacity as Minister for Defence Co-ordination.47

No doubt to the relief of RAAF headquarters the information compiled by Jones’s staff was simply noted by ministers. No-one seems to have noticed or been concerned that the figures of ‘casualties’ provided to ministers were of aircraft in which men were killed rather than the number of fatalities. But the whole subject of accidents and casualties would continue to be sensitive. Nerves were exposed in an extraordinary eruption of paper warfare in the Air Board in November 1940. It began as what purported to be a reduction of unnecessary reporting of minor accidents. From the beginning of November it was proposed that the customary signal and forwarding of form E/E 24 should only be continued for ‘major accidents’. The new policy defined major accidents as any that involved injury, breaches of flying discipline, or carelessness. It also included any occasion when the aircraft could not be made serviceable within four days. An incident that did not meet these criteria could be included in a monthly return to be collated for statistical analysis.

When he saw the minute accompanying the suggested order, the DCAS Bill Bostock immediately picked the flaw. Reports were in effect to be censored before they had been seen by the Inspectorate of Air Accidents. But, as Bostock well understood, one of the most important functions of the IAA was to inform the Chief of the Air Staff, by personal investigation, of the state of flying discipline and maintenance at units in which accidents occurred. An accident might have a negligible outcome but still be symptomatic of a serious problem. The existing system should continue, he concluded. Risking the wrath of his superiors, the Director of Training, George Jones, replied that commanding officers must be considered reliable to decide what was a minor accident. Bostock smartly pushed the issue up to the CAS. He could be confident of the Chief’s response. ‘I am afraid,’ Charles Burnett noted:

that the ability of officers commanding units is in doubt in some cases, and we cannot afford to lessen up, in any way, the supervision.

Over the last two months the average over the months is one accident a day, and I do not think that will congest our lines of communication. I therefore wish that the old order should stand for the present.48

Burnett was struggling to construct a coherent policy. No sooner had he called into question the ability of some unit commanders, he was insisting in December that squadron commanders were immediately to review the flying ability of all pilots under their command. Below-average pilots were to be given every opportunity to gain flying experience ‘preferably with the minimum crew compatible with the duty to be carried out, under the strict supervision
of the flight commander’. For new pilots special attention was to be given to supervising their conversion course; they should have ‘ample solo flying experience before carrying a crew’.49

Trying to prevent accidents by inexperienced pilots was only a partial solution. Men who should have known better were also a big part of the problem. So worrisome were ongoing breaches of flying discipline that stringent action was demanded. The number of accidents attributed to ‘flying indiscipline’ had reached such proportions early in 1941 that the CAS conferred with Bostock, Murphy, Knight, Winneke, and Reg Leonard — the Air Member for Personnel and the Director of Training being noteworthy absentees — on means of preventing breaches. A confidential order followed, calling for increased severity of sentences in ‘flagrant cases’; ‘punishment must be deterrent, as well as corrective’. ‘It must be borne in mind,’ the new AMP Harry Wrigley wrote, ‘that, although there is a shortage of pilots, the efficiency of the Service may be increased by the elimination of reckless pilots and pupils who endanger the lives of themselves and others and hazard the safety of their aircraft.’

Paddy Heffernan, enjoined by George Jones ‘to take any measures to keep the accident rate down’ at the newly opened No. 4 Service Flying Training School, instituted his own draconian punishment: wrongdoers in Geraldton, careless or disobedient, would be fined 14 days’ pay. But this was local practice not a Service policy. For court-martial offences, it was decided to publish the charge and sentence. Publicising the fate of miscreants would serve the additional purpose, valuable to both the higher command and the government, of deflecting perceptions that the fault lay in the equipment or the training regime.50

Official anxiety about public perceptions was matched by a growing realisation that pupil pilots themselves were arriving at Service Flying Training Schools ‘impressed with the idea that certain types of Service aircraft are difficult and dangerous to fly’. The Hudson was implied but not named. What had emerged was that these impressions emanated from instructors at the Elementary Flying Schools, ‘invariably’ men who had never flown the types they were talking about. The ‘misleading and inaccurate statements’ were lowering morale and detrimentally affecting pupils’ flying. Commanding officers were enjoined to put a stop to dissemination of false information by personnel in their units. And, doubtless in the hope that their efforts would not actually foster the fear they were meant to diminish, the order was to be brought to the notice of squadron and flight commanders ‘but not to personnel holding lesser appointments’.51

Restriction of what was to be said outside the walls of central and area headquarters reflected another acute outbreak of blame-shifting between the Directors of Training and Technical Services. On reading the report of his Accident Inspectorate in January 1941, the Chief of the Air Staff seized on Group Captain Murphy’s analysis indicating that nearly 19 per cent of accidents the previous month were attributable to ‘equipment’ and ‘maintenance’. The number of preventable accidents is still too high, Burnett minuted. Ellis Wackett put up a provocative defence of maintenance standards. ‘My general impression after going into these statistics fairly carefully,’ he wrote, ‘is that many of the accidents seem to be due to failure on the part of the pilot to carry out simple elementary acts such as turning on the petrol cock.’

Better instruction rather than disciplinary action, appears the only course likely to improve this position. Whilst I deprecate spreading rumours, yet I feel that I should state that I learned, with great surprise, during the last few days that certain pilots who were just about to finish their flying course (on Ansons) in their Advanced Training Squadron of a S.F.T.S. did not even know that the engine in an Anson is a Cheetah. If this indicates the amount of material information that these pilots are receiving apart from actually handling the aeroplane’s controls, then it is not surprising that they fail to turn on a petrol cock as they are probably not at all clear that the aeroplane requires petrol to remain in the air.

George Jones, as Director of Training, was quick to reply that you didn’t need to know the name of an engine to understand how it worked. But he acknowledged that the 58 per cent of accidents designated by the Accident Inspectorate as ‘personal’ and ‘training’ occurred through disobedience of orders or poor flying techniques.

Disciplinary action was invariably taken when pilots had transgressed. But ‘poor flying technique’ was, he argued, ‘brought about mainly through the rate at which we are expanding’. He had been making the same point since the beginning of 1940. Instructors with very little experience were being used. Sending Central Flying School Instructors to detect weak instructors was helping to improve standards. But it was not enough: ‘the more we force the pace the greater will be our accident rate’.52

---

52 ‘Summary of Air Accidents Dec. 1940’, NAA: A705, 32/10/3110. Vincent, The RAAF Hudson Story Book One, Ch. 5 summarises Hudson training to 1945.
Bob Hitchcock successfully flew these 3 Ansons and 14 others
(Courtesy of Bob Livingstone)

Jones might have been right about the ineluctable rise in accidents. But it did nothing to alleviate Burnett’s ‘grave concern’. All detected offences should result in punishment, he insisted, ‘whether resulting in injury or damage or not…I should like to feel assured that offenders have acted in full knowledge of the serious consequences likely to ensue to them, and in wilful defiance of their commanding officer, officers, and instructors.’ The Chief of the Air Staff and his advisers realised that threats were not enough. They knew that they were attempting to change a culture that was deeply engrained. In addition to a letter addressed to commanding officers of all units, Burnett took it upon himself to prepare a statement for distribution throughout the Service. It was to be read to all trainees at the end of their courses at Initial Training Schools and at the beginning of their subsequent elementary and service flying courses. In all other units it was to be ‘brought to the notice of all flying personnel’.

Six paragraphs of persuasion distilled Burnett’s argument. First was an appeal to logic. Flying orders were the result of ‘the combined wisdom of persons with years of experience in all the varied aspects of flying and common sense alone dictates that they are not to be disregarded because of the inclinations, or conceit, of some particular individual’. Then came an ethical proposition: ‘No person has in time of peace, let alone in time of war, the right to kill or injure himself, much less…to cause death or injury to others.’ Then shame. Other people’s lives and health were entrusted to pilots: ‘any pilot who betrays that trust through
breach of orders is not fit to take his place in the pilot’s seat’. Patriotism was next. A member of the Service who caused ‘wanton destruction’ was hindering the war effort ‘just as effectively and in some cases more effectively, than the enemy agent or saboteur’. Service pride followed. It was up to everyone to ensure that the good name of the RAFFA was not sullied: ‘Low flying and other breaches of discipline which cause loss damage and grief to civilians must eventually lower the prestige of the Service in the eyes of the community.’ Finally there was the prospect of retribution. Men had already been fined and imprisoned. They had been stopped from obtaining a commission. But flagrant breaches were still occurring. There was no alternative, Burnett concluded, but to make the punishments increasingly severe, including discharge from the Service, publicised throughout the Service and in the press.53

Evidently at their wits’ end to prevent low aerobatics and unauthorised low flying, RAFFA headquarters came up with another idea a couple of months later. It was issued over the signature of George Jones as Director of Training for the Air Member for Personnel. The gravity of the present national emergency, Jones announced, demanded ‘every effort to conserve both aircraft and personnel’. Therefore it was proposed to introduce an honour system:

Commanding officers are to interview each of their pilots, explain the urgent necessity for conserving both themselves and their aircraft, and request each pilot individually to give his word of honour not intentionally to break any flying regulation, order or instruction.

If any pilot was not prepared to give his word, the matter was to be referred immediately to Headquarters. What Jones had not expected was that some COs might require signed undertakings rather than a quiet ‘verbal assurance’. Nor that a cantankerous officer with nothing to lose might conscientiously decline. At 40, Dr Clyde Cornwall Fenton OBE, with 2600 hours in light aircraft as the celebrated pioneer of the Northern Territory Aerial Medical Service, was now a general duties flying officer at No. 3 Elementary Flying Training School. Fenton envisaged a number of occasions when the letter if not the spirit of regulations might be broken so as ‘not to retard instruction unduly’. While expressing his dismay at an attitude ‘unexpected in an officer of Flying Officer Fenton’s standing’, Jones realised that a conciliatory course was called for. He might have known that 10 years earlier Fenton had resigned an RAF commission over a disagreement about regulations. In a memorandum copied to Southern Area headquarters, Jones stressed that the intention had always been ‘to make obedience to flying orders and regulations a personal matter between the pilots and their commanding officers and to impress on the minds of all pilots that intentional disobedience of orders is a dishonourable thing’. There would

always be borderline cases: ‘the test is the intention underlying the act…any reasonable variation of flying orders applied intelligently and in a co-operative spirit should never be regarded as evidence of the intention to break an order’. All ended well and Fenton finished the war as a squadron leader still recognised by his commanding officers as a man of fixed opinions with ‘a tendency to go his own way’.  

For the wartime RAAF, flying accidents would continue to be an intractable concern. The inquiries into the crash of A16-97 had unintentionally revealed how little was yet understood about why some accidents occurred. The focus continued on trying to determine whether a pilot was at fault. In April 1941, a new system was introduced in which an entry was to be made in a pilot’s log book in relation to any accident for which he was considered ‘blameworthy’. The assessment would refer to (a) inexperience (b) error of judgment (c) carelessness (d) gross carelessness (e) disobedience. Entries in categories (a) and (b) would be in black ink; the others in red. There was a further taxonomy of ‘accident causes’ which would be classified as ‘taxying’, taking off, overshooting, heavy landing, faulty cockpit drill, air collision, forced landing (lost, fuel exhausted, etc.), low aerobatics, and unauthorised low flying. Even if a breach of flying discipline did not result in an accident, the same procedure would be followed in the hope of reducing accidents for which pilots were to blame — and all ‘without loss of initiative or enterprise’. As it had occurred to the Air Member for Personnel that putting pilots in fear of red ink might have adverse consequences in some circumstances, the system was not to apply in cases of flights in ‘operational missions’. These were omitted ‘in order to foster the present high standard of self-reliance and initiative’.  

Bemusing as all this might be, the AMP concluded that each pilot who had a ‘clean’ log book would be afforded ‘a sense of pride additional to that in his own positive war service, that no fault of his has detracted from the war effort of the Nation as a whole’. Here were well-intentioned men at the pinnacle of a burgeoning organisation floundering for insight into the behaviour and motivation of thousands of new volunteer subordinates. They were overwhelmed by a sea of anonymity where just two years earlier they had known by name every pilot in their fraternity.  


55 By 1943 a punch-card system for analysing aircraft accident data allocated percentages to fourteen categories of cause. Six related to personnel (error of judgement, poor technique, disobedience of orders, carelessness or negligence, errors of supervisory personnel, errors of other personnel); three to material (structural, power plant, and instrument failure); and five miscellaneous (weather, darkness, airport or terrain, other, obscure). Lockheed Hudson A16 [Accidents Part 3]. NAA: A9845, 136. For thinking six decades later, see *A Guide for the Conduct of Investigations into ADF Aviation Safety Occurrences Classed as Incidents or Serious Incidents*, Dec. 2003.
Better understanding

Harry Wrigley’s endorsement of eliminating ‘reckless pilots and pupils’ was one solution. Something could also be done about what was going into the minds of trainee pilots. And, as George Jones would clarify a month later, pupils ‘should never be punished where accidents result solely from lack of ability’. However, no-one doubted that it would be better if candidates who might prove a danger to others as well as themselves could be screened out before they were accepted into the Service. Good pilots were a scarce resource in wartime. Interviews, references, physical requirements, and police checks would weed out some obviously unsuitable applicants. Beyond that there was some primitive science. In 1932 an attempt had been made by the RAAF to assist aircrew selection by correlating reaction times to the ability to learn to fly. It would be some years before it was realised that rapid reactions might lead to speedy execution of bad decisions.

In striving to improve the selection of men for flying training, as well as to understand what had gone wrong when crashes did occur, attention turned belatedly to research on the character, temperament, and personality of pilots. In explaining accidents, pilot error was the residual explanatory category when no mechanical fault, environmental calamity, or physical infirmity could be found. But what if it were possible reliably to identify candidates who were less likely to be successful in the air and exclude them before they became a hazard to themselves and others?

In the United States, where aviation medicine was already an expanding specialty, it was recognised, in the words of the leading authorities, that ‘those qualities which determine the probable success or failure of a candidate for flying training have not as yet been accurately defined’. The RAAF did not pay close attention to American developments, depending rather on liaison with the RAF for exchanges of medical officers and advice on medical matters. In Britain as well as Australia there had been an almost exclusive reliance on subjective assessments of the personal characteristics of potential recruits. The value of professional inquiry into the psychology and physiology of pilots had been neglected. Giving evidence to one of the 1939 Courts of Inquiry, Wing Commander John McCauley, CO of the cadet wing, disclosed:

56 The documents quoted in the preceding seven paragraphs are all in NAA: A705, 231/8/7 Pt 1.

611
Although trainees were selected only after personal interviews in which an effort was made to judge their ability to stand up to stress, an average of 15 to 20 trainees were found toward the end of the dual-flying stage not to have shown natural aptitude for flying.

It was his responsibility to determine whether they were up to the standard but the Air Board decided whether they were to be given further training or dismissed.\(^{58}\)

A frustrated British authority, F. C. Bartlett, Professor of Experimental Psychology at Cambridge University, had surveyed ‘Psychology and the Royal Air Force’ in 1937. Speaking of the period when Bob Hitchcock was a cadet in training, Bartlett pointed out that 20 per cent of candidates for RAF short-service commissions who passed the initial medical examination had to be rejected after a period of preliminary instruction. Steps were being taken to assess intelligence and motor co-ordination, but there were more profound problems that awaited systematic research. Having studied instructors’ reports Bartlett noted that in some cases ‘all the necessary capabilities are present, but something prevents them from coming into operation under certain conditions’:

A man has everything necessary in the way of natural fitness and acquired skill, but when he is confronted by unusual conditions, in a moment of stress, through unusual susceptibility to fatigue, when the tempo of his reactions must be radically changed, or for a variety of other reasons, his inherent ability and skill seem to desert him. Failure of this kind may be merely incidental to a stage of training. But it may also be persistent, inescapable, a part of a man’s temperament or character.

In Germany at around the same time authorities were beginning to talk about how medical officers could help in developing a better understanding of ‘errors of judgment’. The Australian CAS had brought to his desk a synopsis of an article urging ‘psycho-analytical treatment’ of the pilot to ‘throw light on his mental worries’.\(^{59}\) The objective would be to discriminate between cases of what in everyday language might be described as a nervous breakdown and others that were better characterised as over-compensation for an inferiority complex. But, as the Psychiatric Section of the Victorian Branch of the British Medical Association observed in mid-1940, Australian authorities were giving no lead

\(^{58}\) The Argus, 8 June 1939. In a paper for the Institute of Engineers Aeronautical Branch in November 1932 S/Ldr Bostock said that on average about 3 per cent of applicants were considered suitable for selection for an Air Force flying course; of those selected, approximately 20 per cent were discarded during the first three months as ‘unlikely to become efficient Air Force pilots’ (Ellison MSS NLA MS 1882 7/215).

to those with special knowledge of psychiatry and psychotherapy about how they might best serve.60 The psychiatric professionals might have guessed at the sceptical concern expressed by Victor Hurley, the Director-General of Medical Services, to the Air Force's principal legal officer Fred Knight that psychiatrists 'would make life difficult for those trying to enforce discipline'.61

Old ways were ingrained. The president of the RAF's Central Medical Board, Group Captain Raymond Ryan, who was appointed early in 1940 to organise a medical service for the Royal Canadian Air Force, encapsulated conventional attitudes in an address to the Canadian Medical Association in June 1940:

A hard and fast rule cannot be laid down, but those with successes in team games are preferable to those of the solitary type — the full back at rugby and hockey, or the stroke of a crew, are selected for their stability and reliability. It is not prejudice but experience which prompts the statement that the man whose only hobby is stamp-collecting or music more frequently breaks down than his more versatile brother...While a man's hobbies alone should not militate against his acceptance, one has a certain suspicion about him, as his type frequently develops an anxiety state.62

Little wonder that sharper minds would say that authorities were generally agreed that 'the pilot's nervous and emotional stability is of prime importance, while...the existing tests for its estimation are inadequate and actually misleading in some cases'.63 Change was coming, slowly. In Britain Professor Bartlett had been heeded.64 From early 1940 the RAF Aviation Candidate Selection Board had begun to use a battery of 12 aptitude tests developed by the Cambridge Psychological Laboratory to assist in discriminating between potential fighter

---

60 H. Selby Link to the Editor, 12 June 1940, Medical Journal of Australia, I, 26, 29 June 1940, pp.912–3.
61 Knight, These Things Happened, p.344.
64 Bartlett argued in secret notes in late 1940 that it was time to think of flying accidents 'less as a problem of training than as one of the lapses which even the most highly trained skill [sic] are likely to suffer' (NAA: A705, 43/1/674).
Ten Journeys to Cameron’s Farm

and bomber pilots. In Melbourne an RAAF Medical Training Unit had been established, and was followed near the end of 1940 by the creation of a Flying Personnel Research Committee personally chaired by the Director-General of Medical Services. However, even the limited insights into aptitude and ‘defects of personality’ that the committee and its network of researchers developed would come a decade too late to benefit Bob Hitchcock and his fellow cadets from the class that graduated in 1936.

In considering the question of accidents, Frederic Bartlett had observed that it was usual to think in terms of ‘accident proneness’. An accident-prone person would have more accidents than others of similar background in comparable circumstances. ‘It is clear,’ he pronounced, ‘that no “accident-prone individual” could possibly go very far as a flying officer.’ Yet this was precisely what some of his contemporaries maintained was what had happened to Bob Hitchcock. If it were true, was it simply a triumph of hope over experience? Did the sense of obligation to his family outweigh what could be thought to be remediable lapses? Or had some fundamental problems been overlooked? Bartlett’s list of ‘outstanding significant temperamental qualities’ might well have been assembled with Hitchcock in mind:

- impetuosity or caution; suggestibility or contrariness; capacity to move rapidly from one type of adjustment to a different one; ability to translate what has been learned in one medium into a different medium…power to remain cool-headed and steady whenever the normal tempo of reactions is radically altered; sociability.

On all of these criteria a shrewd assessor might have had doubts about Bob Hitchcock. But an undeniable truth had to be confronted. In spite of any shortcomings he might have had in the qualities deemed essential for a good pilot, Hitchcock had survived five years of regular flying and his career in


the Service had prospered. For the four years from 1935, when he began his training, to 1938 there had been 18 fatal Air Force accidents with 26 deaths (two of them a civilian mother and daughter). Another nine men were seriously injured. If earlier fears about his flying had persisted, it would have been possible at any time to assign him to station or headquarters duties to which minimal risk attached. From the outbreak of war onwards there were many more posts in administration, recruiting, and flying instruction than men to fill them. Instead, Hitchcock had been one of the first to be put in charge of the Air Force’s newest and most demanding aircraft, and to be given the task of guiding less experienced men as they joined his squadron. No one who graduated with him in July 1936 had passed him in seniority. Somehow it was overlooked by many that while he ascended a dangerous competitive ladder 10 per cent of his contemporaries had fallen by the wayside.

There was of course an explanation for Hitchcock’s longevity in the Service. As the Air Board had pointed out in 1938 in its refutation of Sir Edward Ellington’s conclusions about RAAF accident rates, of the 12 cases he examined eight had involved pilots with less than two years’ experience, and two were cadets under instruction. The probability of fatal accidents clearly shrank with each year of experience. What no-one in the upper ranks of the RAAF wanted to say in the spring of 1940 was that the man they held responsible for the crash that killed their own Minister as well as nine other men was in fact one of their better pilots.
