JUST CULTURE

The BGA Safety Team discusses an important aspect of accident reporting and analysis

One of the earliest accident reports in the BGA archive describes a mid-air collision between two gliders that had been winch-launched at the same time by different clubs operating 200m apart on the same airfield. The gliders had taken off into a low sun with snow on the ground, and the airfield geometry made it difficult for the second pilot to see the first launch. The first glider, having drifted towards the other in a modest crosswind, had released shortly before the collision, which occurred while the second glider was still on the cable.

The report quickly dismissed potential adjustments to the airfield layout, and the folly of separate launch operations a few wingspans apart was not discussed. Instead a page was given to *consideration of negligence*, finding the primary cause of the accident to have been the first pilot's failure to follow airfield orders requiring the two operations to remain either side of the runway that lay between them. A separate *consideration of blame* stated that as the other pilot's lookout 'was not as vigilant as possible', he was partially responsible for this accident, but that as his 'degree of blameworthiness is minimal' disciplinary action should be limited to 'a formal interview with the CFI'.

BLAME CULTURE

While this is perhaps an extreme example, its approach typifies many accident reports of the era, in which a careful summary of events was followed by sympathetic identification of the person considered at fault, often concluding that they 'had learned their lesson'. There seemed to be little club-level consideration of how procedures and training had led the person to act as they did, or to link the event to previous occurrences.

This approach was common right across aviation. Accident and incident analysis ended by identifying a culprit, who often suffered punishment and retribution. The blame culture gave organisations little incentive to look more deeply into systemic

or cultural causes, for which responsibility might have been uncomfortably close to home. There was a strong disincentive to report mistakes and near-misses for fear of reprisals, and consequently little was learned to prevent future recurrences.

ACCIDENT/INCIDENT INVESTIGATION

Since the first days of powered flight, efforts have been made to learn from things going wrong. The Royal Aero Club published the UK's first air accident investigation report in 1912, two years after issuing its first pilot's licence; the Royal Flying Corps Accidents Investigation Branch, forerunner of today's Air Accidents Investigation Branch (AAIB), was formed just three years later; and Wg Cdr Spry, the pseudonym for various writers from the mid-1950s, offered sage advice to service pilots through the RAF's *Air Clues* journal. Nonetheless, the consequences of owning up to mistakes and near misses deterred and distorted many potentially useful accident and incident reports, and aviation remained a risky business.

CONFIDENTIAL REPORTING

The jet age growth in passenger flight made aviation disasters more spectacular and less acceptable, and by the 1960s systematic attempts were under way to analyse air accidents to improve safety. In the USA, the FAA's Project SCAN aimed to study and reduce near-collisions, and to gather data it protected the identities of incident reporters. This idea was applied more broadly [1] when British European Airways established a confidential incident reporting scheme, which promptly exposed a culture of non-standard pilot procedures that had already caused major loss of life.

In December 1974, a TWA Boeing 727 crashed into Mount Weather on descent towards Dulles Airport near Washington DC. All 92 of the passengers and crew perished. It quickly emerged that six weeks earlier a United flight had almost ended the same way, with ambiguous air traffic instructions behind both events. The need to collect and analyse details of incidents and near-misses was now clear, and in April 1976 the FAA introduced its confidential, non-punitive Aviation Safety Reporting System (ASRS) [2]. This is independently administered by NASA, which strips identifying details and issues reporters with a receipt that ensures they are not penalised – provided no accident resulted and their actions were not criminal or deliberate. Along similar lines, the UK CAA introduced its Mandatory Occurrence Report (MOR) scheme the same year [3]. The BGA set up its own reporting system in the same period.

JUST CULTURE

By guaranteeing immunity from punishment, confidential schemes encourage the widest reporting of valuable flight safety data. This immunity recognises that few pilots set out to crash, and that many slips and accidents are inadvertent results of systemic failures of training, monitoring or procedure. This was, of course, the aspect that early reviewers – often responsible for training, monitoring and procedure – were happy to avoid.

Flight safety has still occasionally been compromised through recklessness, negligence or deliberate intent – including at organisational level – so there must be scope in principle for disciplinary or remedial action. The principle of the 'just culture' [4] nonetheless remains that honest mistakes should not be punished, and that only if they reveal training or medical deficiencies should they result in licence suspension or loss. If a temporary suspension is needed during the

initial investigation, this should be conducted as swiftly as possible.

It is crucial that any remedial training is not itself used as a punishment, and instead targets the deficiency uncovered. Some may feel that airspace infringement awareness (and motorists' speed awareness) courses can in this respect be too crudely applied.

REPORTING MECHANISMS

The BGA welcomes reports of any gliding-related accidents or incidents that could have wider safety implications, and even when an accident is serious enough to require reporting to the AAIB [5], details should also be sent to the BGA [6]. Anyone can submit a BGA report, though most are sent via a club safety officer or CFI. Please send any missing details at a later stage if the relevant sections cannot be completed in the initial report. The BGA's small team of trained investigators can give help and advice if required [7].

When the BGA office receives a report, it removes personal information and distributes confidential copies to a small group of senior instructors and technical and safety officers; only the BGA office and two members of the safety committee see unredacted copies. We read every report submitted, and key details (omitting personal information) are entered into our accident/incident database. When an MOR (Mandatory Occurrence Report) is needed [8], the BGA office submits it via the Europe-wide ECCAIRS 2 database of aviation safety data.

If an accident occurs abroad, or involves an aircraft that is foreign-registered or under LAA or BMAA airworthiness control, there may be further reporting requirements to ensure that type and system related failures are identified, addressed and communicated to other operators [9, 10]. Voluntary reports submitted via the CAA's MOR system [3] can also be helpful in encouraging manufacturers to address design weaknesses. Mid-air near collisions should be reported to the UK Airprox Board [11].

' THE PRINCIPLE OF THE JUST CULTURE IS THAT HONEST MISTAKES SHOULD NOT BE PUNISHED '

CLUB CULTURE

All clubs should have systems for reporting accidents and incidents, noting vulnerabilities and suggesting improvements. To encourage reports it helps to advertise the changes that they prompt, and to have alternative mechanisms so that, for example, a report can be made initially from the airfield using a phone or at leisure using pen and paper. Most important, though, is the just culture.

Few incidents remain truly confidential in the small, close-knit community of a gliding club, and clubs should ensure that no-one is vilified for having an accident. Watch out for signs of post-traumatic stress, including loss of confidence, anxiety and distraction [12,13]. As pilots are inclined to agonise over their mistakes, a little mild banter can *sometimes* be cathartic, provided it develops quickly into a positive discussion that recognises that the event could have happened to anyone and attempts to find a remedy. Ring the bar bell if you must, but then make sure that others recount related experiences and find a constructive way forward.

Tim Freegarde and the BGA safety team

■ The BGA, AAIB and UKAB websites [5, 6, 9, 11] give full details of when and how to report gliding-related accidents, incidents and worrying occurrences. The Back to the Cockpit [12] and BGA's Head in the Clouds [13] websites may be helpful in addressing post-incident anxiety.

[1] H K Gordon-Burge, J RAeS **71**, 773 (1967) *https://tinyurl.com/flyright2441*

[2] FAA, 40 years of safer aviation through reporting (2016) *https://tinyurl.com/flyright2442*

[3] CAA, UK Mandatory Occurrence Reporting *https://tinyurl.com/flyright2443*

[4] J Reason, Achieving a safe culture: theory and practice, Work & Stress **12** (3), 293-306 (1998) *https://tinyurl.com/flyright2444*

[5] AAIB, Definition of aircraft accident and serious incident *https://tinyurl.com/flyright2445*

[6] BGA, Reporting a safety occurrence *https://tinyurl.com/flyright2446*

[7] Please address flight safety concerns to the BGA's senior accident investigator (07850 744927) or safety committee chair *safetycomchair@gliding.co.uk*

[8] European Commission, Make flying safer checklist *https://tinyurl.com/flyright2447*

[9] AAIB, Report an aircraft accident or serious incident *https://tinyurl.com/flyright2448*

[10] BMAA, Flight safety – accident reporting *https://tinyurl.com/flyright2449*

[11] UKAB, Report an Airprox as a pilot *https://tinyurl.com/flyright2450*

[12]Back to the cockpit, *https://tinyurl.com/flyright2451*

[13]BGA, Head in the clouds, *https://tinyurl.com/flyright2452*

PREVIOUS 'FLY RIGHT' ARTICLES

- The perils of distraction (Apr/May 19)
- Keeping safe in thermals (June/July 19)
- Why it is good to think ahead (Aug/Sept 19)
- The effects of wind gradient (Oct/Nov 19)
- A fun but safe introduction (Dec 19/Jan 20)
- Stop the drop (Feb/Mar 20)
- Avoiding upset (Apr/May 20)
- Backroom boys (June/July 20)
- Cockpit muddle (Aug/Sept 20)
- Safe rotation (Oct/Nov 20)
- Cockpit remedies (Dec 20/Jan 21)
- COVID currency (Feb/Mar 21)
- Eroded margins (Apr/May 21)
- A good lookout (June/July 21)
- Trouble with turbos (Aug/Sept 21)
- 'Hopefully' is not an option (Oct/Nov 21)
- Act when the launch fails (Dec 21/Jan 22)
- Time to solve a knotty problem (Feb/Mar 22)
- RTFM: Read the flight manual (Apr/May 22)
- Startling events (June/July 22)
- Collision risks (Aug/Sept 22)
- Winter hazards (Oct/Nov 22)
- Swiss cheese (Dec 22/Jan 23)
- An expensive mistake (Feb/Mar 23)
- What's changed? (Apr/May 23)
- Aerotow eventualities (June/July 23)
- Problems with probabilities (Aug/Sept 23)
- Winch nuances (Oct/Nov 23)
- Heart troubles (Dec 23/Jan 24)
- Inadvisable turn (Feb/March 24)
- Partial failures (Apr/May 24)
- Safe separation (June/July 24)
- Command and control (Aug/Sept 24)
- Flying elsewhere (Oct/Nov 24)