



SAFETY IN NUMBERS

A couple of investigations into recent accidents have highlighted the importance of multiple-aircraft cross-country expeditions being well-organised, well-led, and marked by good communication.

CAA Safety Investigator Dan Foley has examined two fatal accidents during informal flyaways in the past 18 months.

“In both flyaways, no-one had any official oversight of aircraft departures and arrivals, nor of the route each pilot intended to take. Neither had lodged a flight plan.

“When they were late, no-one really knew what they’d planned to do. Did they call in on a friend? Did they turn back? No-one knew for sure so there was a delay in raising the alarm.

“In those cases, that delay did not have an impact on the survivability of the aircrafts’ occupants.

“But with a similar lack of oversight in any future event, that could so easily be the case.”

Each year North Shore Aero Club hosts an eight-day South Island tour for up to 30 participants in about 10 aircraft.

North Shore CFI Daryl Gillett says participants get to build mountain flying experience and skills in a safe and supervised way, in breathtaking scenery, and in an environment very different to their normal one.

“And of course have some fun!” he says.

The Aircraft Owners and Pilots Association (AOPA) holds regular weekend fly-ins involving up to 60 aircraft landing on and departing multiple rural airfields and strips.

Participants divide into groups, based on their aircraft type and experience, with each group flying together to strips for the day.

“Flying as a group allows us to look out for one another, and share advice ‘in the moment’, says AOPA Life Member Murray Paterson. “It encourages camaraderie and helps build a supportive and non-criticising culture.”

For both organisations, the sharing of information – patently missing in the accidents investigated by Dan Foley – is absolutely key to safety.

Good communication, thorough preparation

Murray Paterson says organiser-participant communication starts well before departure day.

“We question pilots registering for a fly-in about their experience, and currency with strip flying.

“That helps us to better understand them and their flying. Our questions also get them thinking about their flying too, and how much they will challenge themselves during the fly-in.”

Participants are sent information about the host airfield, including an arrival procedure, as well as details about the airstrips, including co-ordinates and length.

North Shore Aero Club holds a formal briefing one week before departure day introducing the safari participants to the rudiments of mountain flying, on surviving an accident in mountainous terrain, nuts ‘n bolts information about things like “the weight and balance stuff”, and baggage allowance.

Pilots are also supplied with satellite images of destination aerodromes. “We want to make sure everyone is as familiar with the stops as they can be,” says Daryl Gillett.

Departure briefing

CAA Aviation Safety Advisor Carlton Campbell says a structured preflight brief is essential.

“I’ve sometimes watched a gaggle of aircraft take off to go somewhere together, after what I’ve thought was a pretty loose briefing.

“It’s easy to be too once-over-lightly, especially in this era of tech-dependence. Sometimes there isn’t enough discussion about what will happen if they encounter challenging weather or lose sight of one another.

“Ask the question, ‘what do we do if...?’. In other words, consider all the variables so there are strategies for making sure everyone is okay at the end.” »



// First stop of AOPA's Darfield fly-in, in September 2019: fly-in co-organiser Michael Oakley's farm at Hororata. Photo courtesy of Brian Curry.



// Participants in the 2019 North Shore Aero Club South Island trip carrying out their flight planning for an afternoon leg from Mandeville to Manapouri.
Photo courtesy of Jamie Davis, North Shore Aero Club.

» During the North Shore safari, after each morning and afternoon briefing – destination, route, where to refuel – participants are given plenty of time to do their own flight planning.

“We expect them to do a proper job,” says Daryl Gillett, “but we also do a bit of a walkaround, checking who might be struggling, and needing help or advice from the instructors.”

At its briefing on the main flying day, Saturday, AOPA encourages any participant to share information, or voice concerns.

“It’s everyone’s responsibility to speak up,” says Murray Paterson. “We have an open communication style at the briefing which encourages participants to ask questions and tell others what they know.

“After the main briefing, we gather into groups and brief for the first strip of the day. Each briefing is a chance for anyone who has experience on that strip to speak up about it, agree on a group flight path and joining procedure, discuss the appropriate radio frequency, and any airspace or operational considerations.

“Members of each group also tell their leader at any briefing if they intend to leave the group and what they then plan to do.

“We brief one strip at a time – just what is required to complete the next flying task. Experience has taught us that keeps information overload to a minimum,” Murray says.

Taking it seriously

After a couple of serious accidents in the mid-2000s, North Shore beefed up its safari procedures.

“We make it clear what we expect in competence, reliability, and expertise from our trip director, the instructors on the trip, and the participants,” says Daryl Gillett.

“We expect them to be on time to briefings, not to be out all hours the night before, and to do thorough flight planning.

“If they don’t, we don’t want them on our trip. They’re a risk to everyone.”

AOPA expects the same. “We require full and on-time attendance at our main briefing,” says Murray Paterson, “with map or device in hand, and full attention”.

The aero club appoints an experienced instructor as trip director, who’s ultimately in charge of making the important decisions.

“Other instructors pull the NOTAMs and the supplement at the start of each day,” says Daryl Gillett, “and give that part of the briefing. That happens again before each afternoon leg.”

PIC responsibilities

Carlton Campbell says there sometimes isn’t enough emphasis on pilots remaining responsible for their own pilot-in-command decisions.

“If the formation separates or gets into a challenging situation – with weather for instance – pilots need to make decisions based on their own limits.

“The moment they try to fly to somebody else’s limits, they can get themselves into real strife.

“‘Group-think’ can also lead to poor situational awareness, as with a group who once blindly followed the leading aircraft on to a closed and ‘notammed’ runway.”

The problem with technology

Dan Foley says in becoming more reliant on technology, people have to be careful not to become lazy.

“You just key in your destination, and the software can tell you how long it’s going to take to get there, what your fuel burn will be, and even what frequency you need to be on.

“What that means though is that the tech-dependent pilot is lacking that two or three-day build-up to flying when they’re thinking about the flight and preparing themselves; mentally putting themselves in the aircraft cockpit, and ‘flying the aircraft from here to there’ on paper before they go.

“Now you just tap in the destination and the software will draw a straight line from where you are.

“So you fly it as a straight line, maybe with the autopilot on, and you have minimal situational awareness.

“The problem is the straight line doesn’t always indicate tricky topography in the middle of the route. One fatal accident I’m aware of, is a pilot flying through hills, following the ‘straight line’. He had so little situational awareness he flew straight into the side of a hill.”

Catering for different flying experience

Carlton Campbell suggests less experienced pilots go ahead of more experienced ones.

“Otherwise, they’re so focussed on keeping up with the more senior pilot, they lose situational awareness.

“If the leading aircraft suddenly goes behind a ridge or whatever, the less experienced pilot realises they haven’t been paying attention to their navigation and can be in a bit of trouble.

“The senior, more experienced pilot has the brain space to fly, and to advise and guide, so should take the trail position. That applies to bigger groups as well.”

With a wide range of participant flying experience, both AOPA and North Shore aim decision-making at the lowest-hours pilot.

“We make pretty conservative weather decisions,” says Daryl. “We wouldn’t generally fly if the winds were above 15 to 20 knots at ground level, for instance.”

Low-time pilots usually fly with an instructor during a North Shore safari, and AOPA encourages more experienced pilots to mentor low-hours ones.

“Identifying people who are really challenging their experience or currency is essential,” says Murray Paterson. “Buddying up with a more experienced person works well.”

Enroute safety

Murray Paterson says fly-in participants fly close to their performance limits, landing on farm and topdressing strips, and unprepared paddocks. Safety is paramount.

“Key safety messages at the Saturday briefing reflect what we expect of our participants: to make conservative and sound decisions, like early calls to go around or not putting pressure on ourselves – or others – to land on a strip we’re unsure of.

“Each pilot is in command of their aircraft but also has responsibility to the group.

“We emphasise eyes out – including passengers – lights on, and radios tuned to the correct frequency, for essential communication only.

“We also make it clear that pilot decisions to stay safe – like going around or holding off joining an overcrowded circuit – will be applauded.

“We aim to remove group pressure and testosterone from proceedings.”

Daryl says if a pilot is using a club aircraft on safari, they must file a VFR flight plan.

In addition, the safari operates a flight following procedure.

“We have a sheet for each leg with a list of the participant aircraft. Before each departure, every pilot-in-command has to seek out the instructor who holds this form, and indicate which route they’re taking, what their fuel endurance is, POB and their names, and then signs that form.

“When they get to the destination, they sign the form again.

“So when they’re overdue we’ve got all the information we need to track them down ourselves, or pass on to the authorities.”

At AOPA fly-ins, group leaders are the first to land on each strip. Conditions, including taxiing hazards, such as rabbit holes, are radioed to the rest of the group.

Daryl Gillett says all the preparation, safety measures and expectations of ‘professionalism’ don’t swamp the event.

“It can be run well with a high level of safety and professionalism without being overbearing.

“Everyone comes back from the South Island absolutely fizzing. They talk about it for months afterwards.” ➔