AN EXAMPLE OF HOW RISK CAN CREEP INTO A SYSTEM







THE DEMAND FOR TRAVEL TO THE REGION CHANGED TRAFFIC MIX AT THE AIRPORT

As Queenstown has grown in popularity as a destination, the airport has seen a rapid increase in commercial traffic.

Technology enabled jet aircraft to safely and reliably operate into the airport. In 2004, RNP procedures were introduced at ZQN, and in 2016, night operations began.

This opened ZQN up to a range of new markets.

The past 20 years (2003 - 2023) saw the following changes in traffic mix:

International IFR **+2,770%** Domestic IFR **+68%** Domestic VFR **0%**

THE INCREASE IN IFR TRAFFIC LEAD TO IMPORTANT CHANGES IN AIRSPACE MANAGEMENT

In 2016, in response to the increase in IFR traffic into ZQN, the airspace classification changed from Class D to Class C.

Within Class C airspace, Air Traffic Control must have a form of separation in place between IFR flights and VFR flights.

The effect of this change, with the added separation, is that VFR traffic found accessing the airfield more restrictive, with reduced throughput.

While these changes are a normal evolution for airports accommodating jet traffic, this had a disproportionate effect on General Aviation VFR operators at ZQN.



UNSAFE PRACTICES DON'T JUST HAPPEN; IT'S RARELY ONE INDIVIDUAL; IT'S NORMALY THE SYSTEM RESPONDING TO A CAUSAL FACTOR

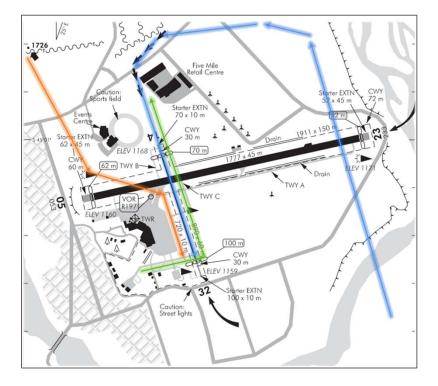
The restrictions on VFR traffic affected operators who had always enjoyed unfettered access to the airport.

To overcome these impacts, new arrival and departure procedures for VFR traffic were introduced to increase throughput.

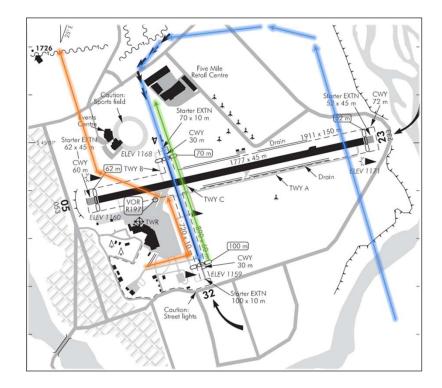
These procedures were known locally as the **Standard West** and **Bravo** procedures.

While these procedures at the time were referred to as 'nonstandard', all participants in the safety management system at ZQN supported them as a pragmatic solution to the capacity issues.

THE STANDARD WEST AND BRAVO PROCEDURES



Bravo Arrival: "Track direct to RWY 05 windsock then air-taxi over or southwest of TWY Bravo and TWY Yankee to the apron."



Standard West Dep: "Air-taxi over or southwest of TWY Yankee and TWY Bravo to the RWY 05 PAPI. Then track to cleared destination via the western shoreline of Lake Johnson 5000 ft or below"

'THIS IS AN ACCIDENT WAITING TO HAPPEN'

Senior Pilot - General Aviation (August 2022)

THINGS OFTEN APPEAR SAFE, UNTIL THEY'RE NOT

For several years, the procedures operated without incident.

The risk is now fully embedded in the system, and over time it becomes normalised.

While pilots and controllers do speak of having to be at *'the top of your game'* to operate in this system, it is seen as being *'just the way things are done in Queenstown'.*

Following the COVID pandemic and the massive reduction in air travel, ZQN then experienced a considerable rebound in activity in 2022.



OUR JOURNEY OF DISCOVERY BEGAN WITH PEOPLE TALKING TO EACH OTHER

The normalisation of risk began to be disrupted by new individuals entering the airport environment and beginning to ask questions about what they were observing.

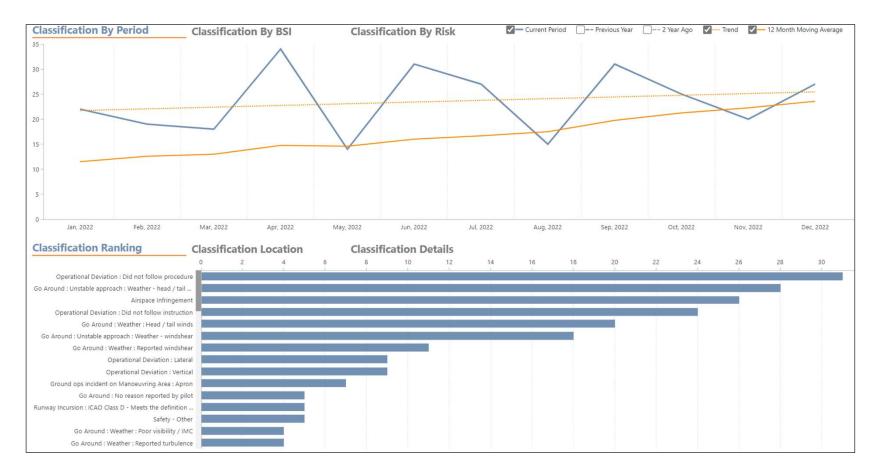
New relationships were developed that then enabled conversations and brought perspectives that were different to the *'Queenstown way of doing things'*.

The focus on building relationships developed trust, which supported a healthier reporting culture. The increased reporting provided data that shone a light on what was happening in the operation.

The true value of the data was not what happened, but why it was happening.



THROUGHOUT 2022, AIRWAYS DATA SHOWED INCREASING LEVELS OF SAFETY REPORTING ON THE AIRFIELD



A NEAR-MISS OF A MID-AIR COLLISION IS A SERIOUS INCIDENT; A SECOND OCCURENCE WITHIN A SHORT PERIOD OF TIME WAS HIGHLY SIGNIFICANT Two helicopters arriving close together on a Bravo arrival. A fixed-wing on take-off on the adjacent runway. An A320 operating off the main runway.

A trailing helicopter with a higher approach speed performed an evasive manoeuvre to avoid the machine in front. The manoeuvre brought its track through the centre line of the adjacent runway while a light aircraft was on its take-off roll.

Light aircraft aborted take-off; all machines landed without further incident.

THOSE CLOSEST TO THE PROBLEM ARE CLOSEST TO THE SOLUTION

Photo: Glacier Southern Lakes Helicopter



GETTING THE RIGHT PEOPLE IN THE ROOM WITH A CLEAR OBJECTIVE TO PRIORITISE SAFETY

Airways, Queenstown Airport, helicopter and fixed-wing operators:

- sharing understanding
- sharing concerns
- sharing challenges and worries
- looking for solutions
- recognising limitations
- recognising non-compliance issues.

During this process, further occurrences made the group reflect more on the limitations of the environment and the challenges that presented.

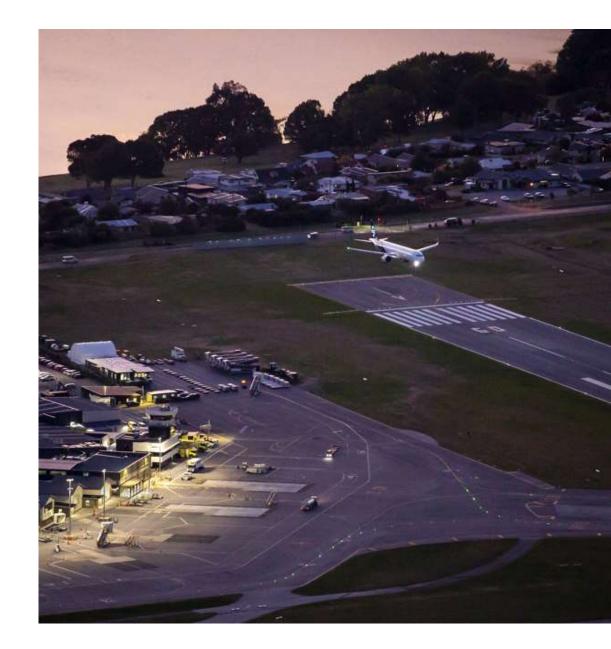
BUILDING A CASE FOR CHANGE CAME FROM WITHIN THE AVIATION COMMUNITY

Change that is imposed upon something or someone is rarely enduring.

While the case for change was led by Airways and Queenstown Airport, the operators engaged in the change management process and co-developed the solution.

Observations provided the 'hunch' that something was wrong. Occurrence reporting data provided the proof, as well as the insights for all participants that raised awareness and built a case for change.

In December 2022, the Standard West and Bravo procedures were removed from ZQN.



THE DEVELOPMENT UNDER WAY AT ZON IS INTENDED TO DESIGN OUT RISK BY DELIVERING PURPOSE-BUILT INFRASTRUCTURE FOR GENERAL AVIATION



THANK YOU