

SPOKEN STATEMENT – Antony Michelle

Introduction

- 1 My name is Antony Michael Michelle – I am known as Tony. I am a former self employed helicopter pilot owning my own helicopter company from 1989 to March 2022 based in North Canterbury.
- 2 The Company conducted helicopter operations NZ wide and included the Canterbury region. I now work as an aviation consultant, and I have held this position since April 2022.
- 3 I have been asked to provide expert evidence, for the Applicant, regarding agrichemical spraying using helicopters.

Qualifications and Experience

- 4 I have been in the agricultural aviation industry since 1983 completing 11,000+ hours of flying as a helicopter pilot.
- 5 As an aviation consultant my role includes advising members of the NZ Agricultural Aviation Association on safety, the implementation of best practices and regulatory requirements and representing their interests at district council plan reviews and regional air and freshwater plans relating to the aerial discharge of fertilisers, agrichemicals, and vertebrate toxic agents.
- 6 I present this evidence independent to that role.
- 7 I have conducted riverbed spraying by helicopter in the Canterbury region annually during my time as an operator.

Summary

- 8 Agricultural pilots are highly trained to safely operate in the low-level environment whilst maintaining a high degree of situational awareness that includes preventing spray drift into sensitive areas.
- 9 Agricultural aircraft operators are competent at ensuring legislative and environmental protections are met.
- 10 Comprehensive pre-job planning is undertaken to identify both flight, 3rd party and environmental risks.

- 11 Conducting an on-site task briefing with all company staff and the client immediately prior to operations beginning to verify the treatment area, chemicals to be used and mixing rates, exclusion zones, hazards, sensitive areas, and any notifications that are required have been undertaken is critical.
- 12 The on-site briefing should be followed up with an aerial overflight with the client to physically identify hazards, sensitive areas, and treatment areas.
- 13 On-board GPS systems provide guidance to the pilot for accurate application and the identification of exclusion zones and hazards.
- 14 GPS systems provide proof of placement and identifies any areas where overspray may be an issue.
- 15 Pilots are trained to monitor and assess wind speed and direction at the treatment site by observation that can be supported by measuring equipment noting that weather conditions at the treatment site can be vastly different to conditions at the load site.
- 16 CAA rules require that onsite weather is recorded. Pilots record weather observations on their Daily Flight Records, and they should record conditions whenever they detect any changes e.g. in wind speed or direction.
- 17 There are a range of mitigations that can be employed to manage drift. In some instances, a single drift management mitigation item will be sufficient where there are low risks, conversely, a combination of equipment and techniques may be implemented in a high-risk situation.
- 18 Drift mitigation includes comprehensive planning, technology, equipment, operational techniques, managing environmental conditions and the use of additives.
- 19 I caution against resource consent conditions that itemise restrictions for specific flight restrictions, instrumentation or delivery as those parameters may impact on the safety of the pilot.
- 20 NZS8409:2021 is an appropriate risk-based standard that adequately provides for the management of agrichemicals that includes the mitigation of spray drift.
- 21 The 13 elements identified in the Drift Hazard Guidance Chart of NZS8409:2021 are universal risks that if appropriately addressed adequately mitigate the risk of agrichemical drift from any application platform including helicopters.

- 22 Pilots are highly trained to implement appropriate spray drift mitigation techniques. This may include operating outside some specific parameters to maintain flight or 3rd party safety whilst also ensuring that spray drift is adequately managed.

Dated 21/03/2024

A handwritten signature in black ink, appearing to read 'Tony Michelle', with a stylized, cursive script.

Tony Michelle

