

Maui63 Trial Flights Report for Lyttleton

On the 26th and 27th of May 2022, Maui63 conducted two demonstration flights over Lyttelton Harbour. The purpose of these flights was to showcase Maui63's ability to contribute to Marine Mammal Management Plan by rapidly surveying the whole area and automatically analysing the resultant photos for dolphins.

Demonstration Summary

Both flights took place from a site off Camp Bay road, on the southern side of the harbour. The site was accessible by vehicle and afforded a good view of the entire harbour. Figure 1 shows the assembled drone with the ground control station set up in the vehicle behind.



Figure 1 - Assembled Drone with Ground Control Station

Both flights lasted approximately 1.5 hours and covered the same area. Figure 2 shows a partial track of the flight on the 26th. Each red dot represents a photo taken. Both flights were limited to visual line of sight distances of approximately 2km, and no dolphins were spotted on this occasion.

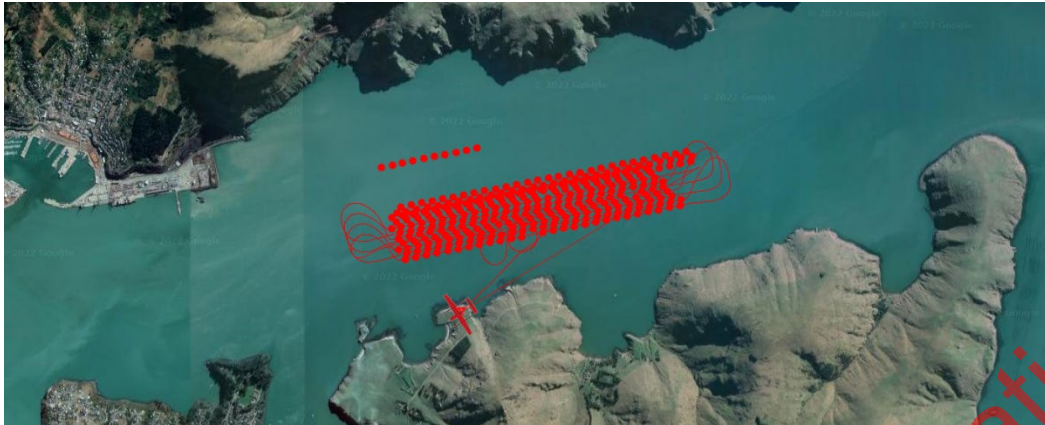


Figure 2 - Partial Track of the Drone Flight on 26th May

Future Flights

Maui63 will be able to survey the whole of the area using our existing permission to conduct extended visual line of sight (EVLOS) operations. Under this scheme, an observer in a boat would trail the drone to maintain visual contact. Maui63 is currently seeking permission from the CAA to conduct beyond visual line of sight (BVLOS) operations, removing the need for an observer in a boat.

Maui63 estimates that the whole area surveyed in approximately 90 minutes. The flight would generate approximately 1700 photos which could be analysed and uploaded to the marine management platform.



Figure 3 - Drone and Ground Control Station Equipment