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How do feral cats react to a thermal drone & spotlight?





Matrice M30T Enterprise Drone (IPRU x 3)

- Thermal camera (640 x 480 sensor)
- Spotlight (GL60 mini) synchronised with camera
- Air time 40 mins
- 2 batteries (need lots of batteries)
- Vehicle based



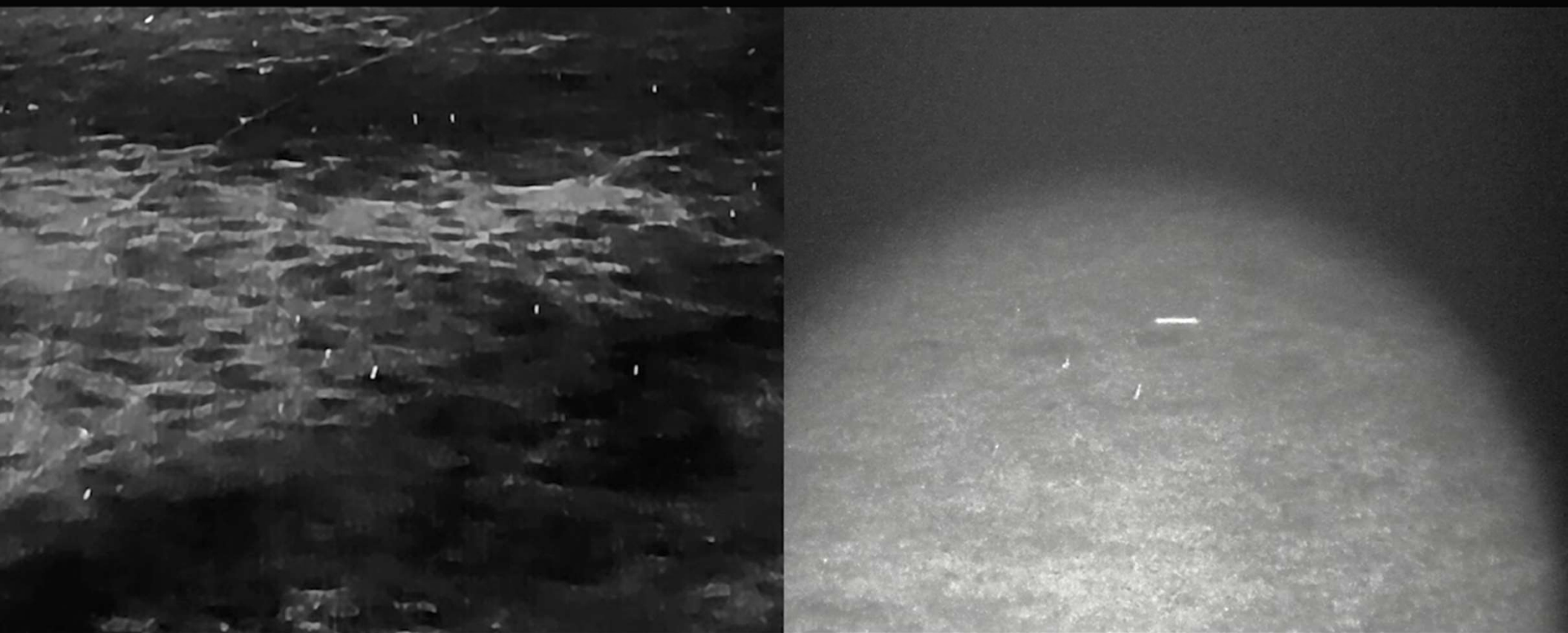


Google Earth

Image © 2024 Airbus



200 m



Difficult to identify feral cats when high numbers of rabbits (640 x 480 sensor)



- Removing the variables – spotlight feral cat and then deploy drone
- Assess feral cat behaviour under drone
- Thermal and spotlight









How would this work operationally?

- Vehicle operations successfully control cats under spotlight on approx. 58% of interactions with the target.
- Drone assisted shooting must enhance efforts, i.e. only when animals are lost to the primary method (vehicle-based spotlight shooting)
- May utilise trailing vehicle with drone & ground shoot team
 - Primary vehicle detects & shoots the cat - job done - move on
 - Primary vehicle loses cat from spotlight - drone vehicle takes over & primary vehicle moves on



How else would this work operationally?

- **Single vehicle with drone capacity:**
 - Tray-back shooting - 2 operators in tray
 - Drone powered up calibrated with spotlight and ready to launch
 - Tray-back shooters become ground shoot team guided by drone
 - Dual cab vehicle (drone operator as driver - target detected vehicle stationary)
 - Requires effective comms system between drone operator & shoot team
 - JSA assessment of risks - traversing to target (rabbit warrens)
 - No rush - observed behaviour so far is cats aren't going anywhere!

Where to from here?



method)

Trial use of
thermal drone
spotlight
ground shooting
team to target



thermal
sensors (2025)



Investigate
drone assisted
ground
shooting:
Equipment
comparisons
Vehicle-based
& non vehicle-
based
Comms
options
Behind the
wire



Feral cats continued to exhibit all “normal behaviours” under drone and spotlight.