



CASE STUDY: Aerial Recovery in Non-Permissive Terrain

Subject: Recovery of Long-Term Missing Person (Cold Case) **Location:** Derry, New Hampshire **Date:** March 2025 **Operator:** Sky Dog Aerial Thermal Imaging

THE CHALLENGE

In March 2020, Amanda Grazewski went missing in Derry, NH. Despite extensive initial investigations, no leads were found. The primary search area included 75 acres of dense marshland near the Hoodcroft Country Club.

- **Terrain:** High water table, dense vegetation, and unstable ground made foot patrols dangerous and ineffective.
- **Time Elapsed:** 5 years. Standard visual search methods were unlikely to succeed due to environmental changes and debris.

THE SOLUTION

Sky Dog Aerial Thermal Imaging deployed enterprise-level sUAS (drone) technology to bridge the gap between ground teams and manned aviation.

- **Asset Deployed:** Thermal & RGB Mapping Drones (e.g., DJI Matrice Series).
- **Strategy:** A systematic grid flight was conducted to capture high-resolution orthomosaic imagery and thermal data of the 75-acre target zone.

THE METHODOLOGY

1. **Data Acquisition:** The aircraft flew a pre-programmed automated flight path to ensure 100% coverage with significant image overlap.
2. **Data Processing:** Images were "stitched" together to create a single, high-definition map of the entire wetland.
3. **Analysis:** The Sky Dog team manually analyzed the data, looking for color inconsistencies, shape irregularities, and thermal signatures that did not match the natural environment.
4. **Targeting:** Six (6) "Points of Interest" (POIs) were identified. One specific anomaly was flagged as a high-probability target consistent with human remains.

THE OUTCOME

Precise GPS coordinates of the high-probability target were transferred to Derry Police and NH Fish and Game.

- Ground teams navigated directly to the provided coordinates.
- Remains were located immediately at the pinned location.
- Positive identification was confirmed by the Office of the Chief Medical Examiner.

CONCLUSION

This operation demonstrated that drone technology is not just a tool for "hasty searches" of live victims, but a viable forensic tool for cold cases. By digitizing the terrain, Sky Dog Aerial Thermal Imaging allowed for a search that was safer, faster, and more detailed than traditional ground-based methods.

