WALDREP COMPANY CHECKLIST

Drone Evidence First Responder Checklist

AUDIENCE	Law enforcement officers, investigators, and first responders arriving on a scene involving a recovered or downed UAS (unmanned aircraft system / drone).
PURPOSE	A field checklist to preserve the drone, its controller, its media, and its flight data without inadvertently destroying evidence before a forensic examiner takes custody.

Section 1 — Scene approach and safety

- Treat the airframe as energized — LiPo batteries are a fire and chemical hazard, especially if damaged.
- Do not power the drone or controller on. Do not press buttons.
- Do not remove the battery in the field unless it is venting, smoking, or thermally damaged. Document any battery action with photos and a written note.
- Look for and photograph any visible serial numbers, FAA registration markings, and unique identifiers on the airframe.
- Establish a perimeter and document the position of the drone, controller, and any peripherals (FPV goggles, signal repeaters, smartphones).

Section 2 — Items to collect (every item matters)

- The airframe.
- All batteries — including those in carrying cases or vehicles.
- The remote controller / transmitter.
- Any mobile device (phone or tablet) paired with the drone or controller. The pilot's flight app holds critical evidence.
- All SD cards, microSD cards, and internal storage media.
- FPV goggles, head-mounted displays, or external monitors.
- Charging cables, dongles, and any USB media in the case.
- Carrying case, manuals, and any handwritten notes.

Section 3 — Power, network, and signal handling

- Place the controller and any paired phone or tablet in a Faraday bag or RF-shielded container immediately. Drones can be remotely wiped over cellular or wifi.
- Do not connect any drone-related device to wifi, cellular, or a computer.
- If a paired phone is unlocked when found, keep the screen alive (do not let it lock) and transport in a Faraday bag with an external power source if possible.
- Note whether the controller display shows any active session, error code, or telemetry — photograph the screen.

Section 4 — Documentation at the scene

- Photograph every item from multiple angles, with a scale reference.
- Photograph propellers in place before any removal — propeller damage tells you about impact direction.
- Document weather (wind, visibility, temperature) — drone flight logs will be cross-referenced against this.
- Document witness statements about flight path, hovering location, and approximate altitude.
- Note any visible recording indicator on the drone (gimbal camera position, lens cap status).

Section 5 — Chain of custody and transport

- Bag and tag each item separately. Do not commingle SD cards with the airframe.
- Use anti-static, non-conductive packaging for electronics.

- Transport batteries in a fire-resistant LiPo bag, separated from the airframe.
- Keep all items at room temperature — do not store in a hot vehicle trunk.
- Transfer custody to a qualified drone forensics examiner with a signed chain-of-custody form within the agency's policy window.

Section 6 — What the forensic examiner can recover

- Flight logs from the airframe, controller, and the pilot's mobile app (DJI Fly, Litchi, etc.) — typically including takeoff/landing coordinates, altitude, speed, and waypoints.
- Video and still imagery recorded to internal storage or SD.
- Pilot identity artifacts from the paired mobile app (account email, device ID).
- Cloud-synced flight history from DJI / manufacturer accounts (often with a subpoena to the manufacturer).
- FAA Remote ID broadcasts captured by nearby receivers, if applicable.

About The Waldrep Company. Eric Waldrep is a court-qualified digital forensics expert and U.S. State Department ATA Cyber Mentor. The Waldrep Company offers drone forensics training for law enforcement agencies.

Need training for your agency or analysis on a recovered UAS? Visit thewaldrepcompany.com/training or call (251) 216-1164.