

BolaWrap® I-yŘ b2yπ [ŜúKI-f wŜăLJ2yăŜ 1y a 2ŘŜNy Policing

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TECHNOLOGIES

BOLAWRAP® AND NON-LETHAL RESPONSE IN MODERN POLICING

Updated Edition — Reflecting ATF Ruling 2026-2

July 2026

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1. Executive Summary

Purpose and Scope

This whitepaper evaluates remote mechanical restraint, specifically the BolaWrap® system, as a specialized Non-Lethal Response™ tool for law enforcement. It analyzes the technology's role during the pre-escalation phase; the critical tactical interval where verbal commands have proved insufficient, but the use of higher-level force is not yet legally or tactically mandated. While this paper centers on the BolaWrap® device, WRAP® approaches Non-Lethal Response™ as a complete system — integrating technology, training, and policy — not a single tool.

Key Conclusions and Implications

The analysis demonstrates that a proactive Non-Lethal Response provides a defensible "tactical gap" (10–20 feet) that significantly reduces injury risks to both officers and subjects.

Key findings include:

- **Safety Outcomes:** Over 91% of deployments result in zero injuries to either officers or subjects.
- **Response Efficacy:** A successful subject control rate of over 85%, with 92% of cases requiring no follow-up force, avoiding the "vicious cycle" of physical struggle.
- **Risk Management:** Strong alignment with the 2025 Supreme Court "totality of the circumstances" standard by providing a proportional response to non-compliant behavior.
- **Federal Regulatory Clarity:** In July 2026, the ATF formally classified the BolaWrap® 150 as an instrument of restraint rather than a firearm or "any other weapon" under federal law, removing a longstanding classification ambiguity that had complicated procurement across several market segments.

Intended Audiences

This report is intended for law enforcement, municipal legal counsel, procurement and training authorities, and corrections and civilian-safety administrators seeking evidence-based response alternatives that prioritize the sanctity of life and agency accountability.

2. BolaWrap®: Technology Overview

High-Level Description and Operation

The BolaWrap® is a handheld, 1.8-lb device that discharges an 8-foot high-tensile Kevlar® tether equipped with weighted anchors. The tether is propelled at velocities between 400 and 450 feet per second, wrapping the subject's limbs 1 to 3 times to restrict mobility.

Its operation integrates:

- **Visual Response:** A high-intensity LED and green laser provide attentional capture and psychological deterrence. The laser serves as a visual guide to "zones of safety" (ankle to mid-thigh), ensuring accurate response and preventing head or neck targeting.
- **Auditory Response:** A 156+ dB impulse sound triggers a subcortical "StartReact" reflex. This involuntary neural mechanism triggers a prepared motor action prematurely, creating a brief cognitive "reset" window that allows officers to move in for custody while the subject is momentarily disoriented.
- **Mechanical Sensation:** Direct physical restriction via entanglement. Unlike tools relying on Neuromuscular Incapacitation (NMI), mechanical restraint remains effective through thick clothing and on individuals with varying body mass or pain thresholds.

HOW A BOLAWRAP RESTRAINT DEVICE WORKS

A safer-force option that wraps and restrains from a distance—without chemicals or electric shocks.

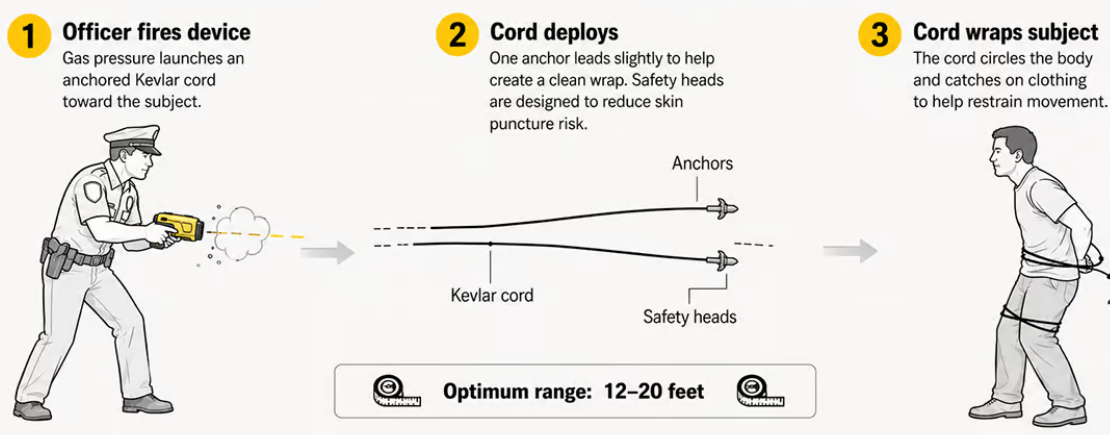


Figure 1: How the BolaWrap® restraint device works — the tether deploys, wraps the subject's limbs, and restricts movement without chemicals or electric shocks.

Intended Operational Role

The device functions as restraint from handcuffs, designed to be an early-response tool rather than a last-resort intervention. It allows officers to respond to non-compliant, non-assaultive individuals by restricting their movement and interrupting their thought process before the situation requires more aggressive hands-on force.

3. Operational Applications

Non-Lethal Response vs. Intervention

A Non-Lethal Response emphasizes the use of technology to support de-escalation by maintaining a safe distance. In the tactical sequence, activation of the green laser often achieves "laser compliance" without a discharge. If the device is deployed, the "StartReact" window provides the officer with the advantage needed to establish control without the trauma of a physical struggle.

Stationary and Passively Resistant Subjects

Remote restraint is highly effective on subjects who are standing still or passively refusing commands. Field data shows that 35% of successful deployments occur while subjects are stationary, and 30% occur while they are

walking away. In these cases, the response is used to "freeze" the subject (e.g., pinning arms to sides to prevent reaching for a weapon, or preventing movement by targeting their legs) without escalating to hands-on compliance holds.

Mental Health and Crisis Response

Behavioral health emergencies account for 63% of field uses. A trauma-informed response utilizes remote restraint to avoid the triggering effects of physical weight or electrical shock, which can be dehumanizing for individuals in crisis. By responding with a non-pain-based tether from 15–20 feet away, officers can safely contain an individual before they can retreat into a barricaded position or reach for an edged weapon.

Intoxication and Substance Use

Substance intoxication is a factor in 55% of deployments. Impaired individuals often exhibit a high tolerance for pain, making traditional compliance tools less reliable. The mechanical response of the BolaWrap remains effective regardless of the subject's chemical state, as it relies on physical entanglement rather than pain-based compliance.

4. Case Breakout Analysis

The following bodycam-documented incidents provide clear examples of a successful Non-Lethal Response to individuals in crisis.

Case 1: Northern York County Regional PD, PA (June 2022)

- **Context:** Response to a domestic dispute involving a male subject experiencing an acute mental health crisis.
- **Subject Behavior:** The subject was stationary but highly agitated, exhibiting verbal hostility and attempting to initiate a physical fight with officers.
- **Verbal Commands:** Officers repeatedly issued requests for compliance, specifically commanding, "Hands behind your back."
- **Tactical Deployment:** Officers maintained a 10–15 foot tactical gap. The deploying officer used the green laser to target the subject's arms while providing a final verbal warning.
- **Mechanical Effect:** The 156 dB discharge triggered an immediate startle response, and the Kevlar tether successfully wrapped the subject's arms, pinning them to his sides and "freezing" his ability to strike or advance.
- **Outcome:** Backup officers moved in immediately to apply standard handcuffs while the subject was still tethered. The subject was detained without injury and asked, "Did you think they hurt? They didn't hurt."

Video: <https://gumlet.tv/watch/696fc5306f4a3a8ce1264c35/>

Case 2: Hillsborough County, FL (August 2024)

- **Context:** Response to a man suffering a severe mental health emergency who was armed with two knives.

- **Subject Behavior:** The subject was mobile and highly agitated, refusing multiple police commands and moving away from officers. He also repeatedly raised the two knives, ignoring officers' requests to drop the weapons.
- **Verbal Commands:** After verbal negotiation failed, an officer issued a final warning: "Put the knives down."
- **Tactical Deployment:** Deployed at a distance of approximately 10 to 15 feet.
- **Mechanical Effect:** The tether successfully pinned the man's arms to his sides, restricting his upper-body movement and providing officers a window to close the distance safely. Due to the sound and sensation of the BolaWrap deployment, the individual immediately dropped the knives and lay on the ground.
- **Outcome:** Officers placed handcuffs on the subject while he remained tethered by the BolaWrap®. The encounter resulted in zero injuries, and the subject was transported to the hospital for evaluation.

Video: <https://gumlet.tv/watch/68fa458d46e3ad8295b06f2a/>

5. Safety and Injury Considerations

Injury Risk Framing

Empirical research indicates that 70% of police officer injuries occur during "no distance" tactics such as wrestling or manual restraint. Responding with hands-on tactics more than doubles the risk of injury, whereas intermediate tools that maintain a tactical gap reduce injury odds by up to 10 times.

Reduction of Close-Contact Force

By restricting movement from a distance, the device minimizes ground struggles, where the majority of restraint-related fatalities occur. 2.67% of deployments result in subjects being secured with handcuffs only, bypassing the need for forceful hands-on restraint that lead to broken bones or soft-tissue trauma.

Officer and Subject Safety

- **Positional Asphyxia:** A remote restraint response avoids the use of prone (face-down) positioning and back-pressure, which the Department of Justice has identified as a "vicious cycle" leading to respiratory failure.
- **Cardiac Profile:** Unlike CEDs, mechanical restraint does not carry theoretical risks of atrial fibrillation or troponin elevation in vulnerable or stressed populations.
- **Minor Injury Profile:** Pilot programs report zero serious injuries; while anchors may cause minor skin punctures, these are classified as negligible compared to the deep-tissue impact of CED probes or baton strikes.

6. Legal, Liability, and Risk Management Considerations

Use-of-Force Scrutiny and Litigation

In *Barnes v. Felix* (2025), the U.S. Supreme Court unanimously rejected the "moment-of-threat" rule, requiring that force be judged by the "totality of the circumstances." This means courts must now evaluate the officer's response choices and tactical conduct leading up to the encounter.

Barnes v. Felix is the most recent point in a four-decade arc of U.S. Supreme Court precedent that has steadily widened judicial review from the moment force was applied to the full sequence of decisions leading up to it:

1985	1989	2015	2025
<i>Tennessee v. Garner</i> Ends the fleeing-felon rule.	<i>Graham v. Connor</i> Installs the objective-reasonableness standard.	<i>Kingsley v. Hendrickson</i> Extends the objective standard to pretrial detainees.	<i>Barnes v. Felix</i> The run-up counts: totality of the circumstances.

Courts now judge the road to force, not just the moment of force. Agencies should be prepared to explain, in any post-incident review, why a lower-risk, non-lethal option was not used before higher levels of force were applied.

Risk Mitigation Through Early Response

Adopting non-lethal, early-response tools demonstrates proactive risk management. The 2024 Ninth Circuit ruling in *Scott v. Smith* underscored that "by the book" prone restraint can lead to a denial of qualified immunity when utilized on individuals in crisis who pose no imminent threat. A remote restraint response fits within the "least injurious alternative" framework preferred by modern judicial standards.

Policy Defensibility

Agencies utilizing comprehensive, IADLEST-certified training can demonstrate systematic records of proficiency. This documentation is a critical defense against claims of "tactical recklessness" or "officer-created jeopardy" during high-stakes litigation.

7. Federal Regulatory Classification: ATF Ruling 2026-2

Overview of the Ruling

On July 6, 2026, Wrap Technologies announced that the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) had issued **Ruling 2026-2**, formally determining that the BolaWrap® 150 is not a "firearm" under the Gun Control Act (18 U.S.C. § 921(a)(3)) and not an "any other weapon" under the National Firearms Act (NFA). The ruling, signed by ATF Director Robert Cekada, was effective as of July 2, 2026, and explicitly supersedes any prior ATF classification of the device.

The ATF's determination rests on the finding that the BolaWrap® 150 is not an instrument of offensive or defensive combat; the agency affirmatively classifies the device as "merely an instrument of restraint." The ruling is grounded in the U.S. Supreme Court's 2025 decision in *Bondi v. VanDerStok*, 145 S. Ct. 857 (2025).

Practical Effect on Procurement

By resolving the device's federal classification, Ruling 2026-2 removes a layer of regulatory ambiguity that has historically complicated BolaWrap® procurement across multiple market segments. Wrap Technologies has identified four categories of procurement potentially affected:

- **Corrections and Detention:** BolaWrap® 150 can move through standard non-lethal equipment channels, without weapons-compliance burdens, across more than 5,000 federal and state facilities.
- **Gun-Free and Civilian Safety Environments:** Schools, universities, hospitals, federal buildings, courthouses, and stadiums may now evaluate BolaWrap® 150 under civilian safety procurement, a channel the Company believes was previously inaccessible under a weapons classification.
- **International Deployment:** Across Wrap's 62-country distribution network, the ruling removes dual-layer compliance friction at both the U.S. export level and the importing nation's domestic law.
- **Autonomous Response Platforms:** The DFR-X drone-based first responder system, which deploys BolaWrap® 150 as its non-lethal payload, may no longer need to navigate weapons-carriage regulatory complexity across FAA, state drone law, and international aviation frameworks.

Under a restraint classification, the BolaWrap® 150 can be evaluated and acquired through standard non-lethal or safety-equipment procurement channels, without a federal firearms license (FFL) dealer requirement or a weapons appropriation.

Note: The market-access categories above reflect Wrap Technologies' assessment of the ruling's effect, as described in the Company's July 2026 announcement.

Significance for the Use-of-Force Continuum

Wrap Technologies characterizes the ruling as validating a distinct position for remote mechanical restraint on the law enforcement use-of-force continuum, sometimes termed the "Wrap Window": the interval between a verbal command and the application of pain-based compliance tools such as conducted energy weapons, impact munitions, or physical grappling. The ATF's classification of BolaWrap® as an instrument of restraint, rather than a weapon, reinforces the argument developed throughout this whitepaper that the device occupies a pre-escalation category distinct from traditional force options — supporting both the tactical case (Sections 2–5) and the legal defensibility case (Section 6) made above.

8. Conclusion

Modern law enforcement requires a paradigm shift from reactive intervention to a data-driven Non-Lethal Response. Remote mechanical restraint bridges the "Force Deficit" by offering a solution that prioritizes distance and dignity over pain and struggle. By reducing overall injuries by over 90%, aligning with the rigorous "totality of circumstances" standard established in *Barnes v. Felix*, and now benefiting from a formal federal classification as an instrument of restraint under ATF Ruling 2026-2, the BolaWrap system offers a strategic path forward that protects officers' careers, improves subject outcomes, simplifies procurement, and rebuilds community trust.

9. Appendix

Key Definitions

- **StartReact Response:** An involuntary neural mechanism where a startling stimulus (156+ dB) triggers a prepared motor action prematurely, bypassing normal cognitive processing and creating a "reset" window for officers.

- **Non-Lethal Response™**: A tactical paradigm that utilizes distance and technology to contain a subject before higher levels of force are required.
- **Positional Asphyxia**: Respiratory failure caused by floor-restraint positions that restrict chest movement; eliminated by the use of remote standing restraint.
- **ATF Ruling 2026-2**: The July 2026 ATF determination classifying the BolaWrap® 150 as an instrument of restraint rather than a firearm or "any other weapon" under federal law.

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