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The Case for Electroshock Weapon Measurement: The lack of government regulation, oversight, or standards for the safety, effectiveness and performance of electroshock weapons (ESWs) led to the premature deployment of this technology. The regular measurement of ESWs is fundamental to officer and public safety by verifying the electrical output is functioning within a manufacturer's specification. It is time for policy makers, law enforcement agencies, organizations, risk managers, insurers, and the public to call for the measurement of ESWs to ensure that only proper functioning weapons are deployed.

- 1. The body's response to an ESW depends on the electrical characteristics of these weapons.
- 2. Improper, ineffective or malfunctioning ESWs can increase the risk of death or serious injury to officers, subjects, or bystanders.
- 3. ESW manufacturers have disclosed the purpose of measurement is "to determine if [ESWs] are operating within published specifications."
- 4. ESW manufacturers have disclosed that it is "the user's responsibility to ensure that [ESWs] are working properly before any use."
- 5. ESW manufacturers have disclosed, "Product specifications may change without notice."
- 6. ESW manufacturers have disclosed that ESWs are "sensitive pieces of electronic equipment."
- 7. The electric current discharged from ESWs can vary due to many factors outside a manufacturer's control. The following are some of the factors that may cause ESW output to vary, be ineffective, or malfunction: Faulty, defective, or damaged electronic components, poor or improper handling or maintenance, miscellaneous mechanical, electronic or firmware issues, defective or weak batteries, and environmental conditions.
- 8. Proper functioning of ESWs should be determined upon introduction or reintroduction into service, post malfunctions, maintenance, firmware upgrades, injuries, or use proximal to deaths.
- 9. Proper functioning of ESWs is critical in the deployment on vulnerable populations. Vulnerable populations include children, elderly, individuals with mental, emotional, and physical disabilities, those under the influence of drugs or alcohol, or any combination of these variables.
- 10. The regular measurement of the ESWs develops weapon baseline performance data, demonstrates conformity, accountability, and transparency.
- 11. The measurement of these weapons should be local and independent of manufacturers in order to prevent potential conflicts of interest and preserve evidentiary data.
- 12. The measurement of ESWs reflects the best practices, policies and even laws requiring the regular measurement of radar guns, breathalyzers and Automated External Defibrillators (AEDs).
- 13. The purpose of "spark testing" an ESW is to "energize the circuit." While a "spark test" may *validate* the presence of a battery, circuit, and a spark, it cannot *verify* the electric current discharged is within a manufacturer's specification, i.e., properly functioning.