Technology Foraging includes monitoring trends and developments related to technologies, products, and practices in areas of interest to criminal justice stakeholders. CJTEC researchers use horizon scanning and market research techniques to identify and compare solutions for specific criminal justice needs. Monitoring research is shared with NIJ to inform their research agenda and is translated into public reports to help the criminal justice community understand the opportunities and realities of emerging technologies.

Testing and Evaluation includes assessments of specific products, technologies, and practices, including those funded under NIJ grant awards. Evaluations may include laboratory testing, testing in real-world environments, evaluations in collaboration with practitioner agency deployments, and verification assessments. Testing and evaluation efforts conclude with reports that inform NIJ and guide technology adoption by the criminal justice community.

NIJ’s Compliance Testing Program tests and evaluates criminal justice equipment (ballistic- or stab-resistant body armor and autoloading pistols) to ensure compliance with NIJ standards. On its website, CJTEC informs criminal justice agencies about products that adhere to NIJ standards and have been tested through NIJ’s Compliance Testing Program (NIJ CTP) by publishing a Compliant Product List, which is continuously updated in real time as new products are tested and approved.

Standards Development supports, validates, and helps maintain NIJ’s criminal justice equipment standards and provides expertise on public safety equipment standards to third-party standards development organizations using evidence-based strategies to ensure safer and more efficient technologies are bought and employed by the criminal justice community. The goal is to ensure that equipment is safer and more reliable according to the minimum performance requirements identified by operational end users.

CJTEC PRIORITIES

NIJ Strategic Research Plans
- Corrections
- Courts
- Policing
- Safety, Health, and Wellness

Priority Criminal Justice Needs Initiative Topics
- Interventions for Interpersonal Violence
- Law Enforcement Response to Homelessness
- Offender Reentry
- Online Dispute Resolution
- Public Information Officers
- Wearables

CJTEC Monitoring Topics
- Artificial Intelligence
- Personal Protective Equipment
- Autonomous Vehicles
- Power Transmission
- Ballistics
- Safety and Health
- Community Engagement
- Substance and Impairment Detection
- Contraband Management
- Wearables and Biosensing
- Digital Forensics
- Virtual/Augmented Reality
- Drones and Counter-UAS
- Evidence Tracking

For More Information

cjtec.org
CJTEC works along the innovation continuum to help NIJ, the criminal justice community, and product developers gain awareness about emerging technologies and solutions and understand the realities associated with criminal justice applications. CJTEC’s activities align to support the stages of innovation from understanding **needs to research** through **assessment, testing, and evaluation** into **implementation and practice**.

**Technology Foraging**

Beyond informing NIJ, CJTEC publishes public-facing reports to advise criminal justice stakeholders on opportunities and realities related to technology-based products and solutions.

Public reports of varying depth:
- **Landscape Studies** – In-depth information on products and technologies
- **Briefs** – Quick education on topics with case studies and example products
- **Capsules** – Two-page fliers providing insights about technologies and timelines

**Testing and Evaluation**

CJTEC conducts performance testing, field evaluations, and impact assessments to ensure that products perform as intended.

**Current testing efforts:**
CJTEC is currently testing and evaluating two tools developed from NIJ-funded projects that introduce new methods for collecting and processing digital evidence for targeted data capture from mobile devices and enterprise-scale networks.

**Planned testing efforts:**
- Detection of cell phone contraband within correctional facilities

**Compliance Testing**

CJTEC’s operation of the NIJ CTP ensures that ballistic- or stab-resistant body armor evaluated by the CTP complies with NIJ standards.

CJTEC supports compliance testing by:
- Working with recognized accreditation bodies (e.g., NVLAP, ANAB) to ensure that NIJ-approved labs meet operational and technical requirements
- Ensuring production units of armor continue to be manufactured identically to originally tested items through a Follow-up Inspection and Testing (FIT) program, where armor is randomly sampled and subjected to limited ballistic testing
- Issuing advisory or safety notices to criminal justice agencies when FIT identifies performance concerns for specific models

**Standards Development**

The changing operational landscape requires the constant updating of standards. CJTEC works with special technical committees to consider changes in weapons and ammunition and how they may affect law enforcement equipment needs.

**These standards keep officers safe by:**
- Informing product design, development, and manufacturing
- Considering fit and coverage of armor
- Ensuring the performance of ballistic-resistant armor
- Ensuring the performance of stab-resistant armor

**Upcoming standards:**
- NIJ Standards for Ballistic Body Armor (2022)
- NIJ Standards for Stab-Resistant Body Armor (2022)
- NIJ Standards for Autoloading Pistols (2023)

**CJTEC’s Activities Mapped to the Stages of Innovation**

<table>
<thead>
<tr>
<th>Needs/Research</th>
<th>Assessment/Testing/Evaluation</th>
<th>Implementation/Practice</th>
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Color denotes CJTEC activities; bold line denotes task emphasis along the innovation continuum

>3,000 LAW ENFORCEMENT LIVES SAVED by law enforcement wearing approved body armor (since program inception)

~20,000 VISITORS to approved ballistic body armor list on CJTEC website (2021)

~40% OF PRODUCTS TESTED by CTP have failed, requiring re-engineering for safety