

# *The Joint Service Small Arms Program (JSSAP)*



Personalized Weapons  
Technology Project

**NJIT**



*NJIT is a Public Research University*



**Stephen C. Small, Ph. D.**

# *Background*

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- July 2000 – ARDEC Technical Director Signs Memorandum Of Understanding With The New Jersey Institute Of Technology (NJIT)



# NJIT/ARDEC MOU

## Purpose:

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- Collaboration in the research and development of smart gun technologies for military and civilian application
- Shared use of research and test facilities
- Joint pursuit of smart gun technology transfer between government, academic and private sector organizations

# NJIT Project Plan

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- Phase 1 - Literature Search
- Phase 2 - Tech Selection  
and Evaluation
- Phase 3 - Prototype Modeling/Fabrication
- Phase 4 - Prototype Simulation/Evaluation



# The Stakeholders

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- Law Enforcement
- Civil Community
- Military?



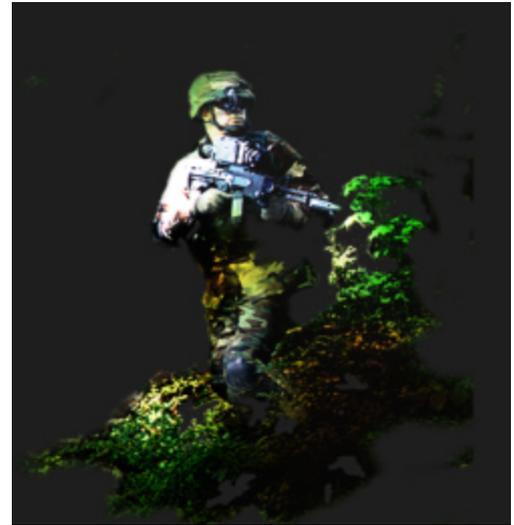
# *Working Definition of Personalized Weapon*



- A firearm whose capability to be fired is biometrically, mechanically, or otherwise safely rendered “authorized” user(s)-only operational



# Possible military off-ramps/on-ramps



- Anti-Theft/Tracing.
- Identification Friend or Foe





# Conference Agenda



8:30 a.m. Wednesday 21 March

Phase 1 – Plenary Session

- Welcoming – LTC Michael Padgett – Deputy Commander ARDEC
- NJIT Personalized Weapons Project Overview- Dr. Donald Sebastian





# Conference Agenda

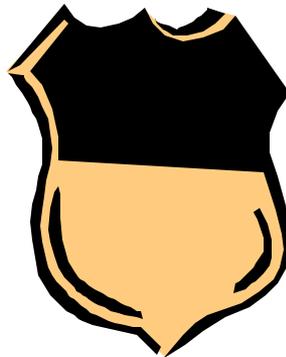


Wednesday 21 March

- NJIT Technology Investigations
  - Dr. Dentcho Ivanov and Dr. Michael Reece
- National Institute of Justice (NIJ) Smart Gun Update - Mr. Chris Miles
- Defense Advanced Research Projects Agency (DARPA) Commentary - Dr. Ed Carapezza



**For more information  
on the "Smart Gun"  
Solicitation,  
visit:  
([www.ncjrs.org](http://www.ncjrs.org))**





# Conference Agenda

Wednesday 21 March

- Close Combat Armaments Center (CCAC) Recent Assessment – Mr. Lucian Sadowski
- FNH USA, Inc. – Mr. Louis Dillais
- Metal Storm CEO – Mr. Mike O'Dwyer







# Conference Agenda

**Thursday 22 March**

- **Applications Working Group**
- **Technology Working Group**
- **Coordination Working Group**



# The Questions

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**Is it authorized user(s)-only operational?**

- **Is it “here & now” regards its maturity?**
- **How might firearm architecture be best impaired?**

**What (if any) are the military off-ramps/on-ramps?**

- **IFF?**
- **Anti-Theft/Tracing?**
- **Other?**

# Initial Technologies Reviewed

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- Radio Frequency Tags
- Remote Control
- Touch Memory
- Lock Systems
- Biometrics I.D./Recognition

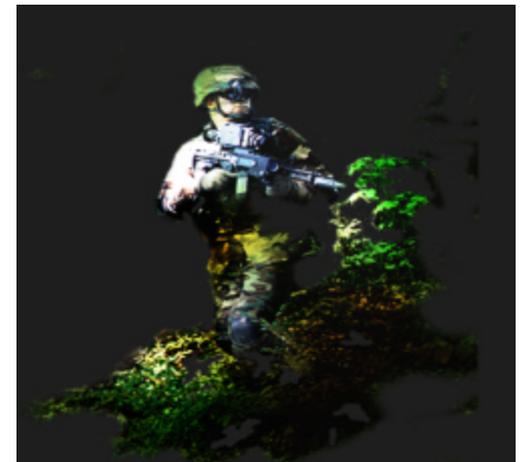


# Conference Survey and Assessment

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- Reliability
- Implementation Time Frame
- Stakeholder Contribution



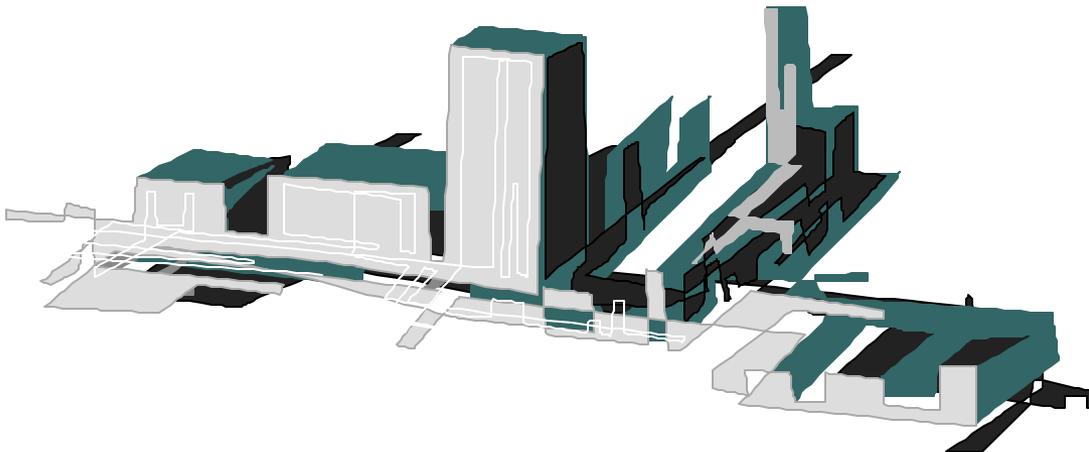
# Project Survey and Assessment

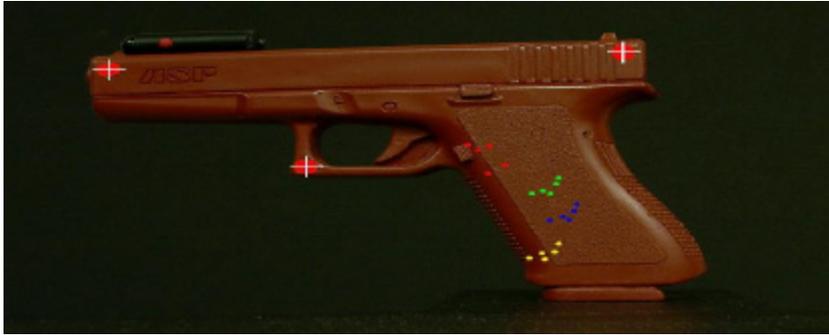
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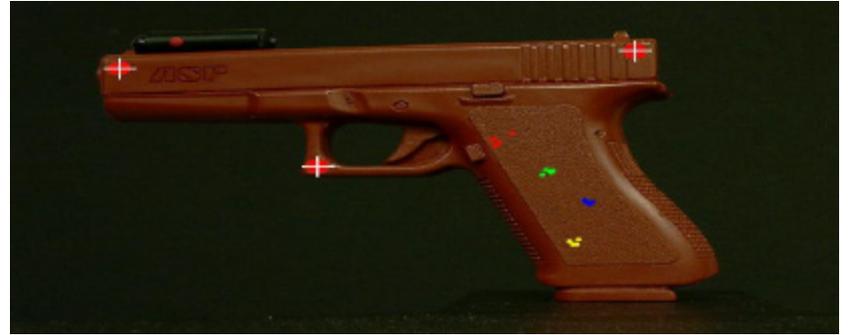
- Initial Technologies Reviewed  
(continued)

- Voice
- Fingerprint
- Grip Pattern

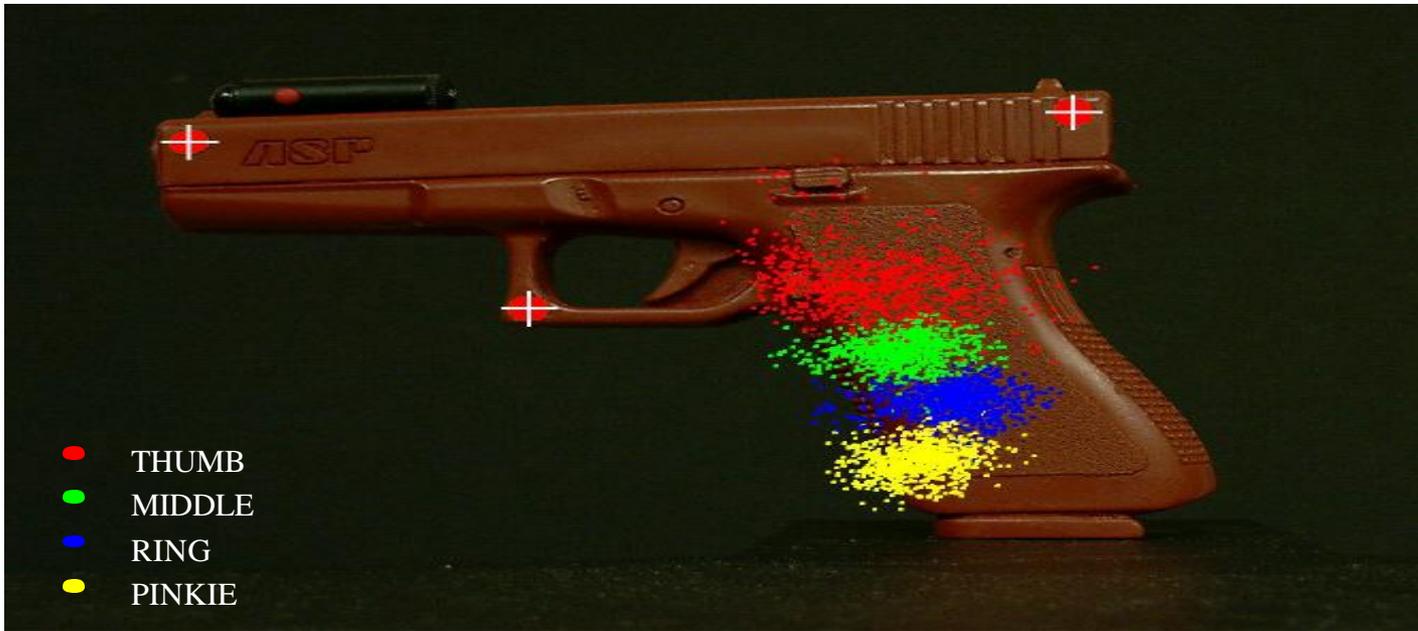




(a)



(b)



- THUMB
- MIDDLE
- RING
- PINKIE

# Plans

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- Meeting Report Draft Prepared: August 2001
- Coordinate and Refine Investment Strategy
- Industry Involvement
  - Law Enforcement/Civil Focus
  - Possible Military Off-ramps



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