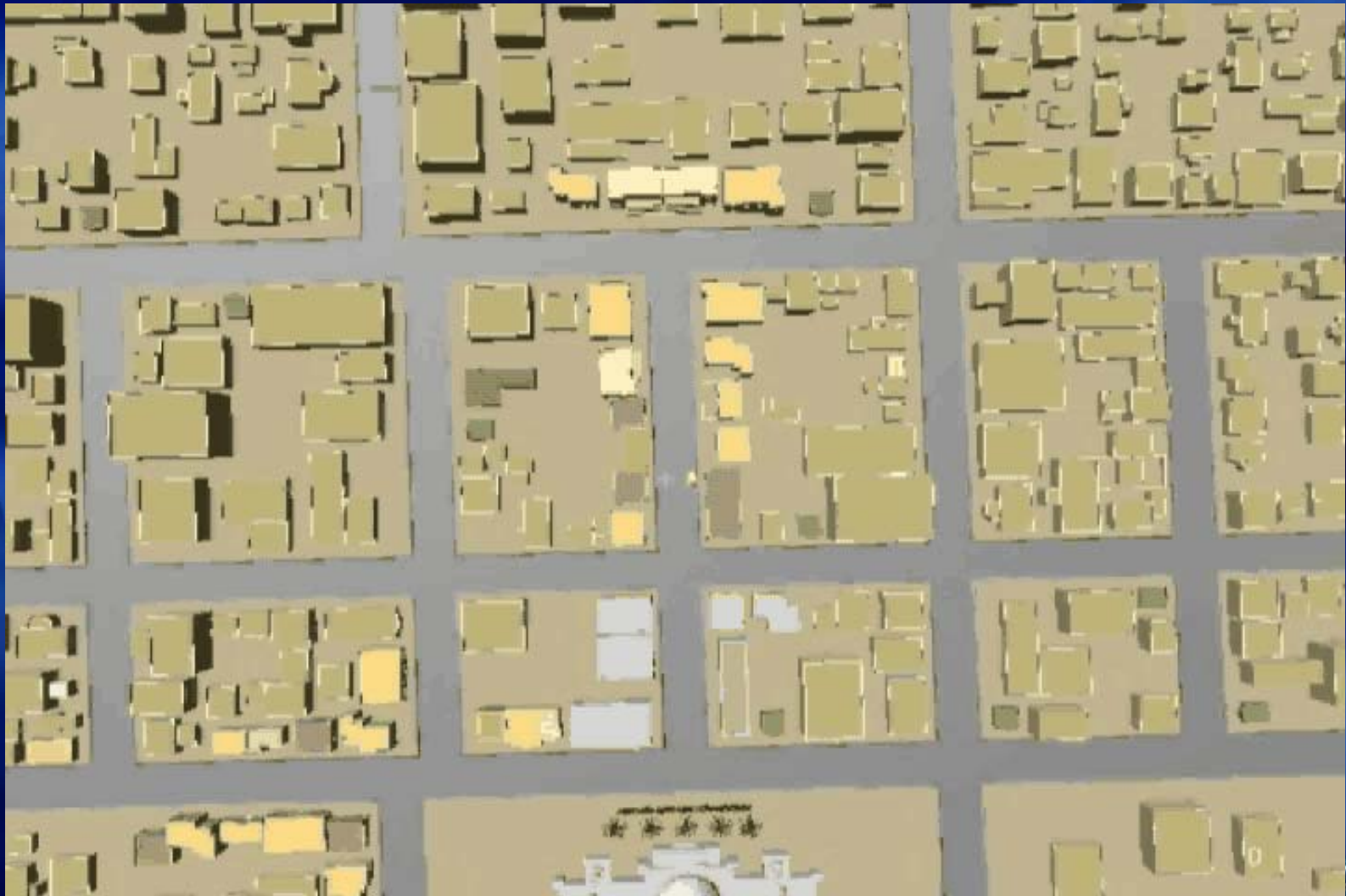


# Future Urban Warfare

Dr Brad Tousley  
DARPA / TTO



# Combat Zone 2025



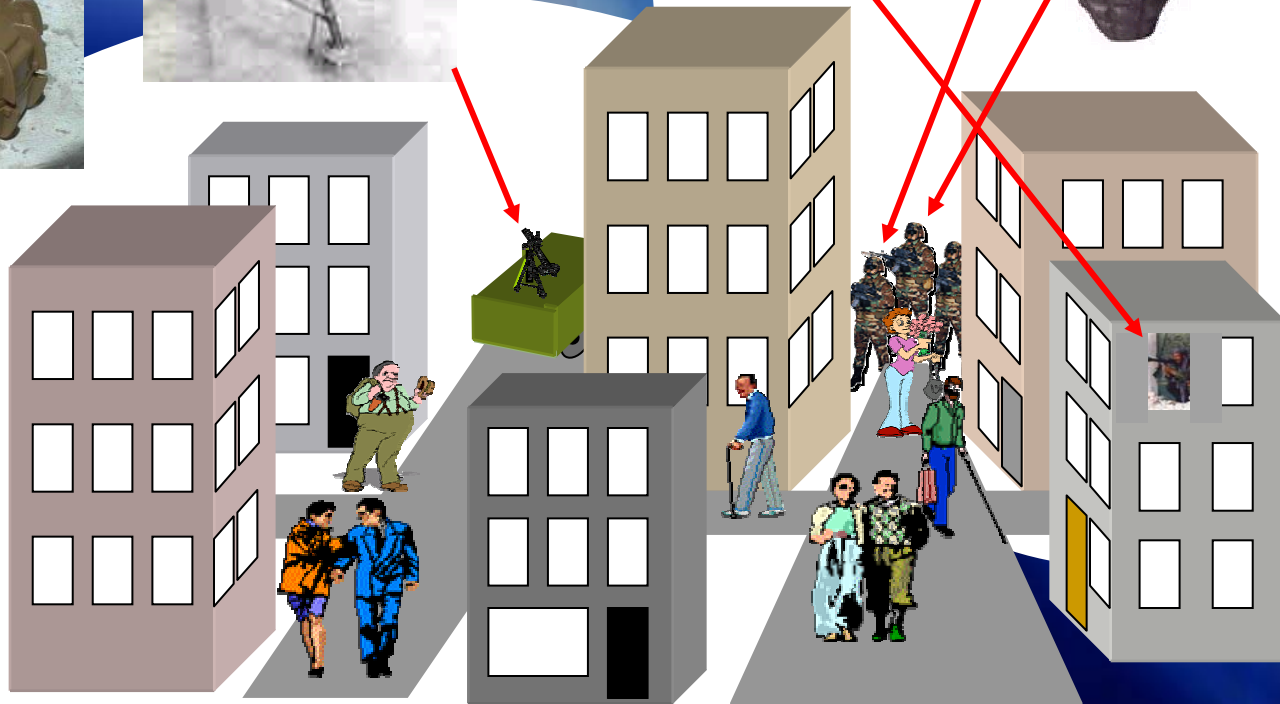
# Urban Environment



# World Population Density



# Adversary Tactics



# Sight Lines Versus Altitude



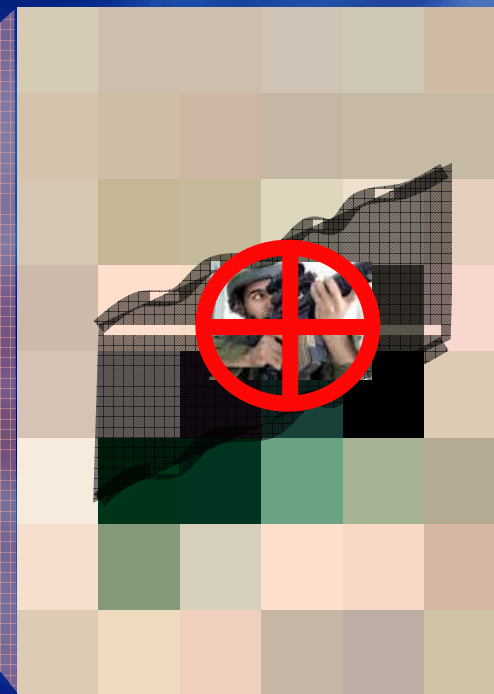
- Street Level
- 150' Altitude



# Former Urban Combat



# Improved Precision

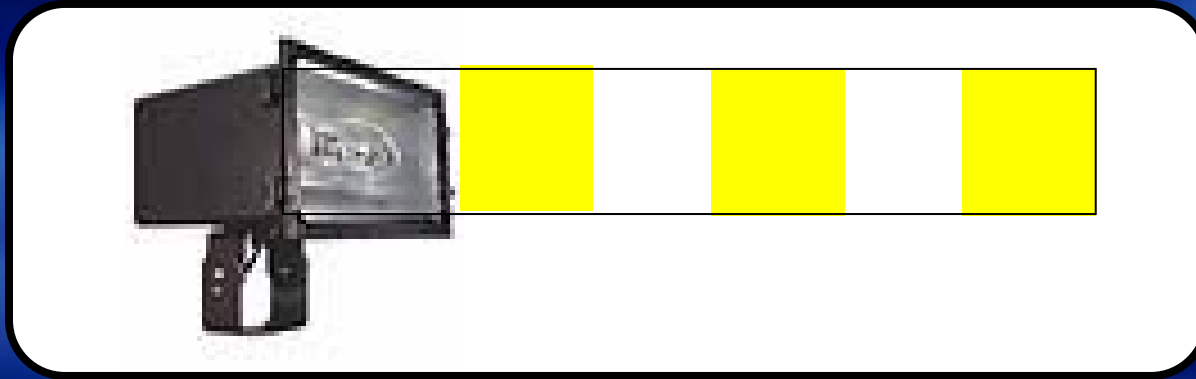




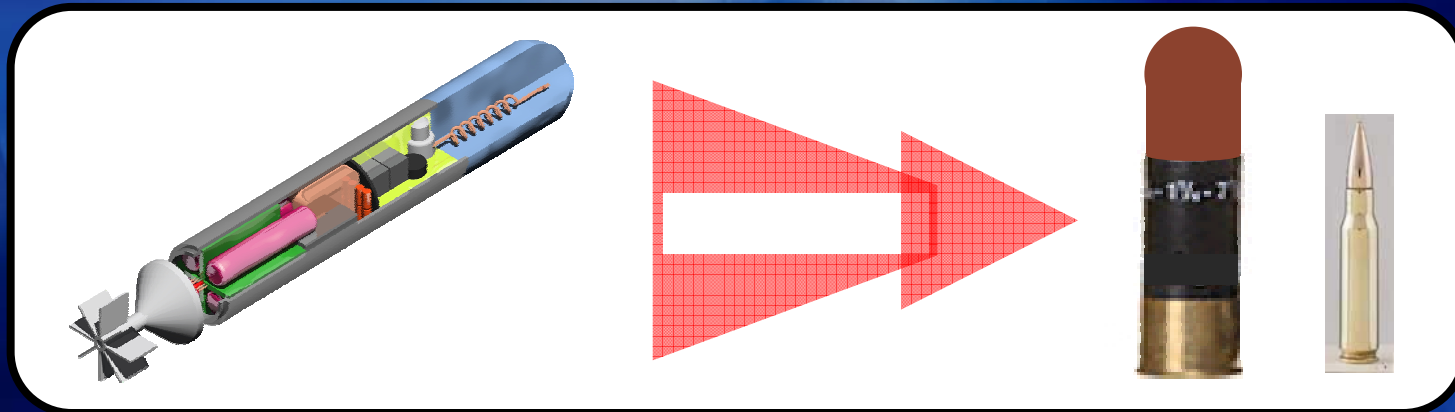
# Hands-Free Weapons



# Possible Non-Lethal Concepts



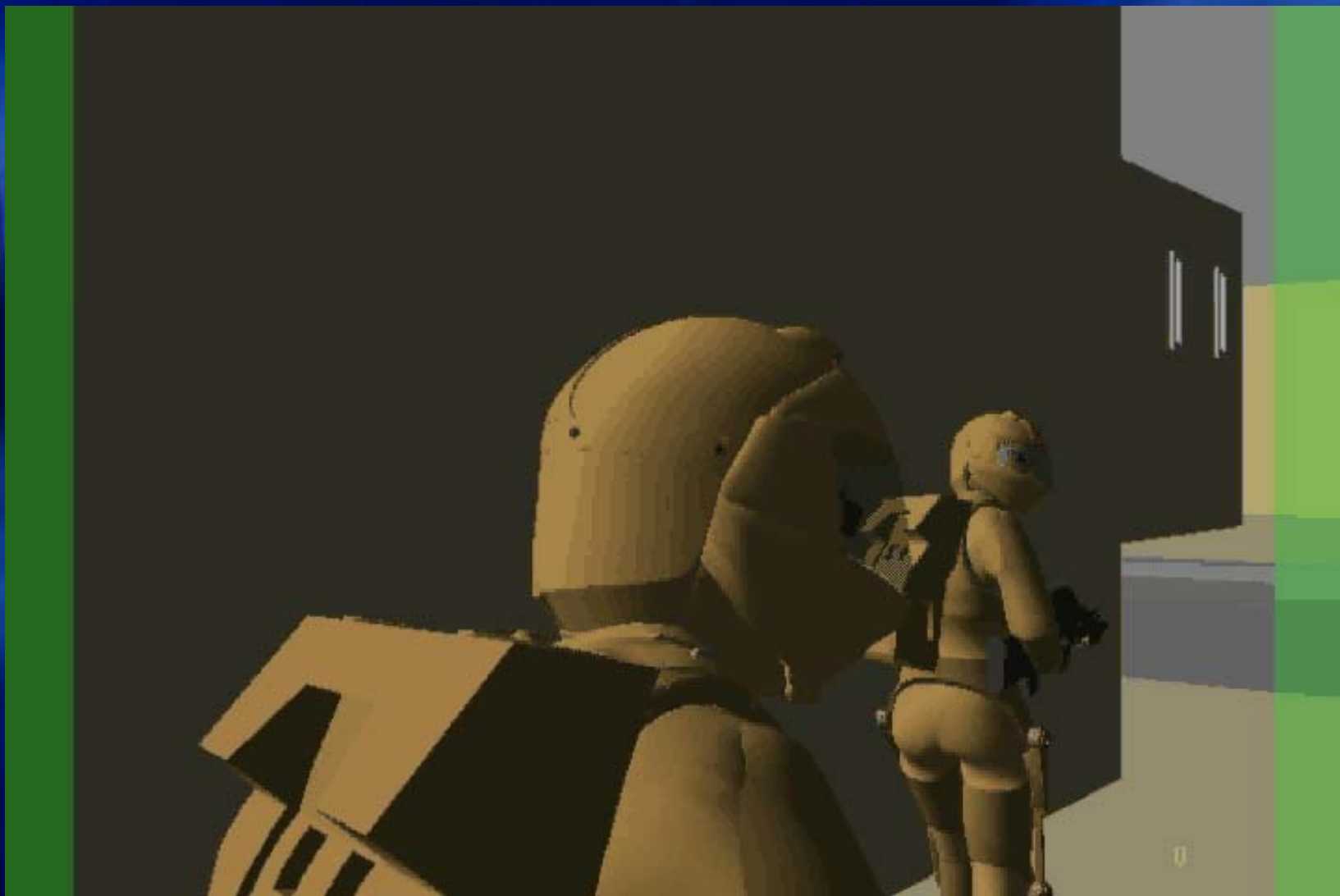
**Modulated Hi-Intensity Light Can Cause Dazzle and Blink Reactions**



**Taser-Bullet Size Reduction Produces Increased Flexibility and Utility**



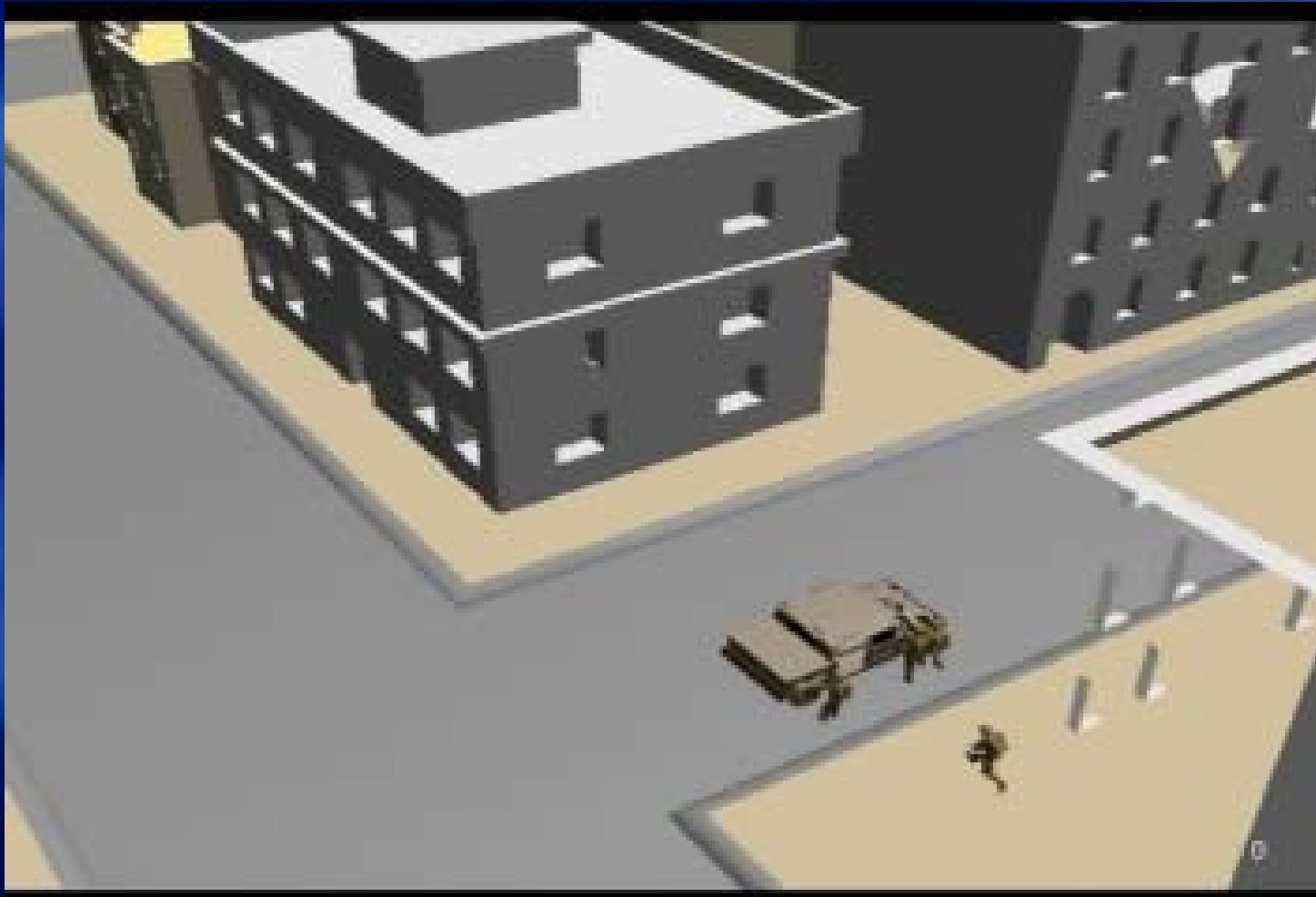
# Urban Non-Lethal Vignette



# Urban Precision Lethal Vignette

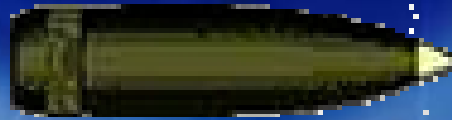


# Urban Mobility Vignette



# Urban Terrain Denial

Aerogels or sticky foams can be loaded into remote delivery devices



Precision emplacement can deny key areas



# Summary

- Passive Sensors
- Lightweight Communications
- Exoskeletal Technology
- Foams and Glues

