



# CRANE DIVISION

## NAVAL SURFACE WARFARE CENTER



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# Small Arms Flash Measurement



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- **SOF Operators are seeking to decrease weapons signature**
  - **Sound**
  - **Flash**
- **Requirements documents include flash reduction**
  - **Phrased as “80% reduction in muzzle flash from baseline”**
- **There is not yet an industry-wide standard for measuring muzzle flash.**
- **The Army and Navy are developing a Small Arms Muzzle Flash Measurement protocol**
- **Operators are consistently putting an emphasis on Flash Reduction at IPT meetings**

# Why is Flash So Important?

- **Weapons Signature helps the enemy locate the American Warfighter**
- **The Sound Signature provides a general area.**
- **Muzzle Flash identifies exactly where the Warfighter is located, and allows the enemy to direct fire and maneuver against US Forces.**

# SSG Robert Miller

- **SSG Miller was awarded the Medal Of Honor posthumously.**
- **SSG Miller's detachment encountered a force of 200 Taliban in NW Afghanistan.**
- **Outnumbered, the US unit began to retreat.**



# SSG Robert Miller

- **While in the fight, SSG Miller realized his Muzzle Flash was drawing enemy fire to his team mates**
- **As his unit bounded back in retreat, he drew off the enemy by advancing and using his Muzzle Flash as a lure, to pull off the Taliban insurgents.**

<http://www.army.mil/medalofhonor/miller/narrative.html>

# M249 Para 5 Round Burst



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# NSWC Crane Efforts on Muzzle Flash

- **Impulse Photometer**
  - Legacy System at Crane (late 80s)
  - Updated 2010-2011
  - A number of issues with the current configuration
- **Are we on the Right Path?**
  - NSWC Hosted a meeting to discuss Flash Measurement
  - **Goals**
    - Determine current state of the art
    - Begin process of establishing a Standard Procedure
    - Get the SYSCOMs on the same page