### OFFICE OF THE PROVOST MARSHAL GENERAL

Forensic Support Across the Full Spectrum of Operations



# Agenda

Forensics Overview

JEFF 7 Current Operations

Future of Expeditionary Forensics

Case Study



### **DoD Forensics Today**

#### **Executive Agency for Forensics**

Defens	se Forensic E	nterprise I	Executive	Agent			
Training	Data Management	Standards	Equipment	S&T	Funding	Manning	
Strat	egic						
Operational							
Tacti	cal						

DoDD 5205.15E, Defense Forensic Enterprise

SECARMY is responsible for the synchronization of forensic activities and stakeholders into one comprehensive community of interest, community of action across the DoD



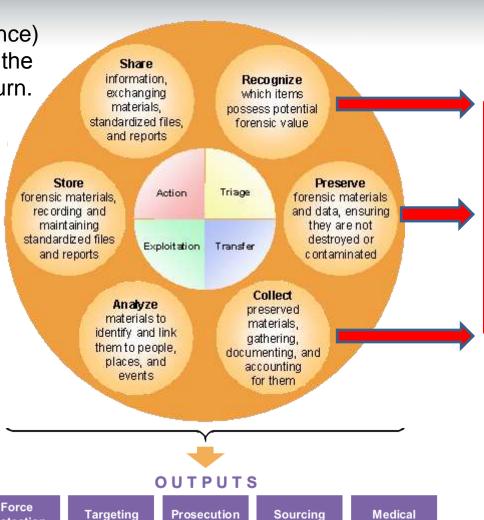
### Forensics Supports Full Spectrum Operations (FSO)

Phase 0 Shape the Environment	Phase 1 Deter the Enemy	Phase 2 Seize the Initiative	Phase 3 Dominate the Enemy	Phase 4 Stabilize the Environment	Phase 5 Enable Civil Authority
<ul><li>Theater</li><li>Security</li><li>Engagement</li></ul>	•Support to Host Nation Identity Dominance	•Force Protection	•Force Protection	•Force Protection	•Force Protection
•Host Nation Training	•Maintain Expeditionary	•Identity Dominance	•Identity Dominance	•Detainee Interrogations	•Host Nation Training
•Build Civilian Capacity	Forensic Capability / Fly- away teams	<ul><li>Targeting</li><li>Joint Ops</li></ul>	•Targeting •Detainee	•Transition to Rule of Law	•Build Civilian Capacity
•Joint Ops Planning	•Joint Ops Planning	Planning	Interrogations  •Joint Ops	<ul><li>Regional Focus</li><li>Joint Ops</li></ul>	•Focus on People and Dispersed
			Planning	Planning	<ul><li>Operations</li><li>Joint Ops</li><li>Planning</li></ul>

# **How Forensics is Applied**

Before the processes are performed, material (evidence) must be recognized...then the Forensic wheel begins to turn.

The linkages formed throughout the forensic wheel produce information that feeds the five outputs. Linkages may be almost instantaneous, depending on the forensic discipline and technology.



Forensic processes in which Soldiers, Sailors, Airmen and and Marines have the most influence include Recognize, Preserve, and Collect--- Level I Training is critical to JEFF success.

UNCLASSIFIED

**Protection** 



# CURRENT OVERVIEW JEFF 7, CAMP LEATHERNECK, AFGHANISTAN, Support to RC(SW) Operations

Slides By: MAJ (USA) Erik Archer, JEFF 7 OIC

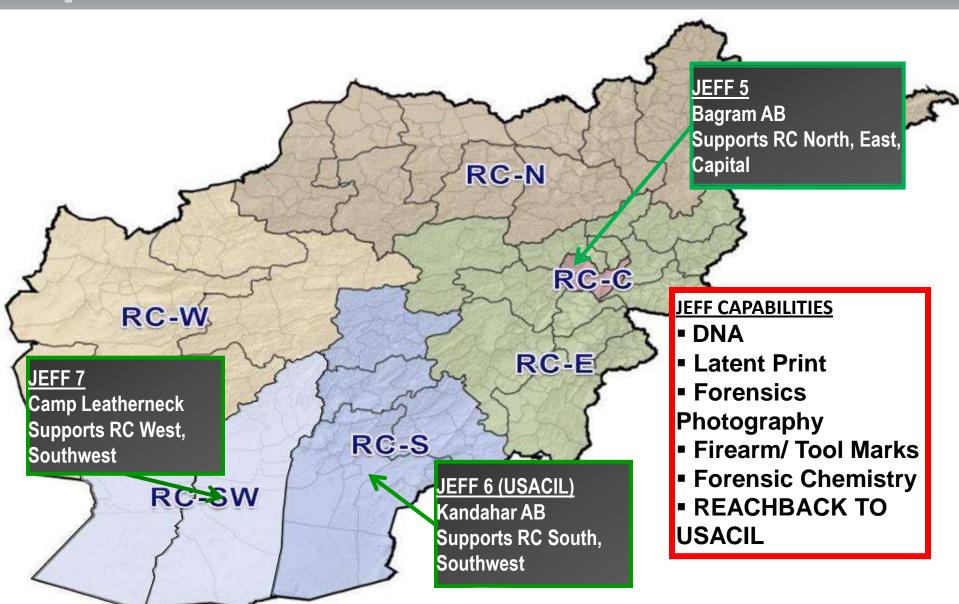


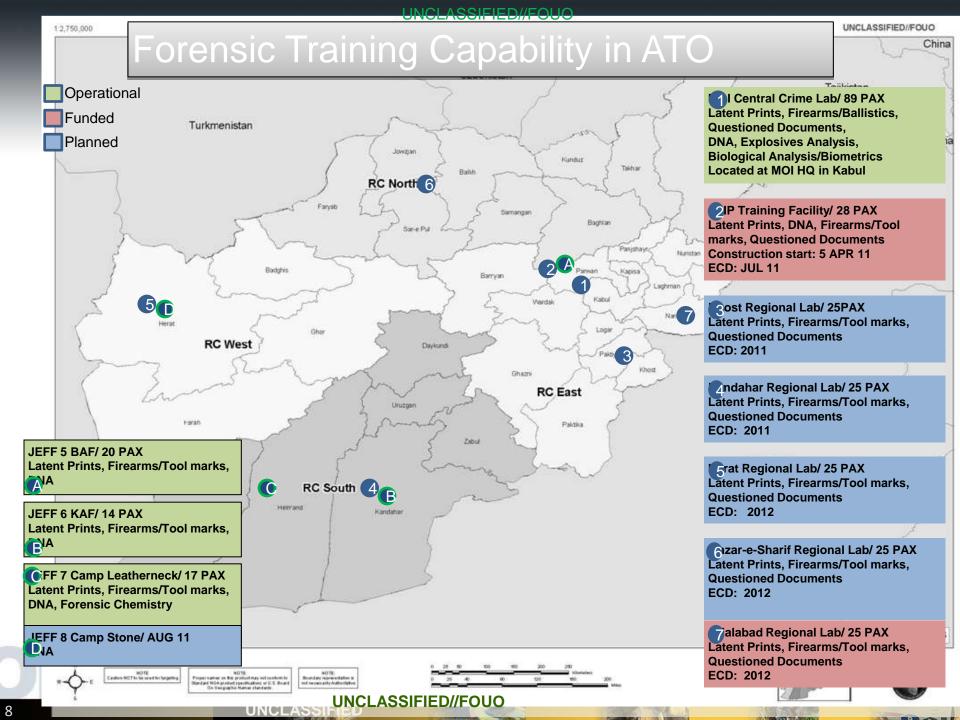






# Operational JEFF Labs in ATO





#### **Forensics to Kinetics**

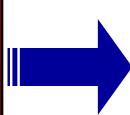
- BLUF: Fully invested in the forensic process, Marines submit evidence to JEFF 7 as a matter of routine. JEFF 7 is the busiest lab in Afghanistan (and Iraq) and received 426 cases in June
- JEFF 7 provides Regional Command SW with DNA, latent prints, chemistry and firearms forensic exploitation capability
- JEFF 7 processes captured enemy materials and translates this hard scientific data into usable information or forensic outputs that are critical to the tactical and operational decision making process



#### **Forensics to Kinetics Process**

#### **Evidence Collection**

Units in RC(SW) collect enemy material (IED components, drugs, explosives, weapons, caches, and biological evidence) and transport to JEFF 7 for forensics analysis.



# JEFF 7 Analysis

JEFF 7 scientists analyze the evidence and provide results within 24 hours for red cases. Any single case can be exploited by one or all four sections. An enemy AK-47 for example would be processed by latent prints, DNA, and firearms.



# Forensic Output / Kinetic Action Result

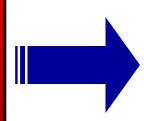
The JEFF 7 Intelligence Analysts are co-located with the RC(SW) Biometrics Manager and the C2-Exploitation Chief in the Exploitation Fusion Cell (EFC). Combining forensics and intelligence analysis, the EFC provides intelligence analysis of forensic results, creates threat networks, and creates for the warfighter easily digestible products such as a Technical Intelligence (TECHINT) Bulletin and an Exploitation Support Package (ESP) that details the forensic output, intelligence



#### **Latent Prints Section**

#### **Evidence Collection**

Marines discovered a cache on 12 March 2011 containing a variety of weapons and Taliban documents. The items were collected and transported to JEFF 7 for analysis.



# JEFF 7 Analysis

Through latent print analysis, 980 fingerprints were identified and uploaded to the common database. The database search revealed six matches to known individuals.



# Forensic Output / Kinetic Action Result

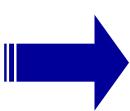
Five of the six individuals were added to the Biometric Watchlist Tier 2. The other individual was detained and the results were provided to the detainee's case manager and interrogator to assist in the prosecution package and questioning. The information will be used to question the detainee on specific terrorist networks in RC(SW) and eliminate intelligence gaps. The forensic analysis aided directly both prosecutorial and intelligence efforts.



#### **Firearms Section**

#### **Evidence Collection**

On 4 May 2011, Marines were engaged with an unknown heavy machine gun. After the engagement, the Marines collected and transported the expended rounds and casings to JEFF 7.



JEFF 7 Analysis
Firearms microscopic analysis
identified the round caliber as 14.5
mm and the weapon as a unique

and significant weapon.



# Forensic Output / Kinetic Action Result

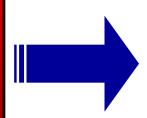
JEFF 7 provided the operators with the weapon information and type. The Marines then deliberately searched for, identified, targeted, and attacked the lethal heavy machine gun. Forensics analysis translated directly into kinetic action destroying a key enemy asset.



### **Chemistry Section**

#### **Evidence Collection**

In March 2011, an individual provided Marines with materials he collected from a suspected enemy compound. Unaware of what the material was, Marines submitted it to JEFF 7.



# **JEFF 7 Analysis**

Through chemical analysis, JEFF 7 identified the evidence as containing compounds consistent with home made explosives.



# Forensic Output / Kinetic Action Result

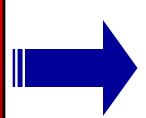
Being informed that the unknown material was in fact home made explosives, Marines conducted a targeted operation on the compound resulting in the discovery of enemy explosives and weapons. These were removed from the battlefield and as a threat to coalition forces in RC(SW).



#### **DNA Section**

#### **Evidence Collection**

Closing over 1,000 cases since November, the DNA section is provided IED components and weapons to identify and process enemy DNA.



# **JEFF 7 Analysis**

In one particular enemy network in RC(SW), the DNA section identified 32 different DNA profiles from enemy IED components. Within this single network, analysts identified one known individual and 12 unknown individuals.



# Forensic Output / Kinetic Action Result

The network ties created by DNA linkage exposed a combined IED network with 18 known and unknown individuals. Within this network responsible for multiple coalition forces casualties, the DNA analysts and EFC provided information leading to a Joint Prioritized Engagement List (JPEL) nomination. The identifications were provided to units in the area of operations IOT capture/eliminate them from the battlefield.



# At the End of the Day---

- JEFF 7 provides a critical component to and is fully-integrated in the RC(SW) operations
- JEFF 7 denies the enemy anonymity and enables targeting, prosecution, sourcing, force protection, and medical related forensic outputs
- JEFF 7 is an enabler to the RC(SW) exploitation process and with the creation of the EFC, hard science is translated seamlessly into information used for fullspectrum operations



#### **Expeditionary Forensics Tomorrow**

- Transition of JEFF to Expeditionary Forensic Laboratory (EFL)
  Program at US Army Criminal Investigation Laboratory (USACIL), Ft Gillam, GA
  - Expeditionary Forensic Division (EFD) established
  - JEFF programs transitions from program management at NSWC Dahlgren to USACIL
  - Deployment of GS personnel augmented with contractors
- R&D at USACIL develops new capabilities
- OPMG/USACIDC/USACIL working with HQMC, PP&O, PS Division to ensure Marine Corps Expeditionary Forensic requirements are maintained

# Why the EFL?

# **Expeditionary Forensic Lab Structure**

<b>EFL Forensic</b>	Science
Capabilities	

**DNA Analysis** 

**Latent Print Analysis** 

**Firearms/Tool Marks Analysis** 

Chemistry

#### **EFL HQ Elements**

HQ (Chief, OPS, Lead Scientist, EC)

Logistics

IT

**Maintenance** 

- 3x EFLs in the Expeditionary Forensic Division.
- Each EFL can support up to 3x locations or individual disciplines can be deployed independently of the whole.
- 40x personnel in each EFL (20x are forensic scientists).
- Primary forensic force provider for DoD, includes robust reachback operations.
- Flexible, responsive to JFC's priorities including ship-to-shore requirements.
- Capable of supporting all forensic outputs: targeting, sourcing, medical, force protection, and prosecution.
- Designed to accept modular components from other disciplines such as DOMEX, Triage, Explosive
   Chemistry, EE, etc. tailored to fit the requirement.

### **Support to Homeland Security**

#### What We Do Matters but...

**WHO**: Waad Ramadan Alwan, an Iraqi refugee, entered the US legally in 2009.

**WHAT**: Charged in 2011 with conspiracy to kill a United States national, conspiracy to use a weapon of mass destruction, and attempting to provide material support to terrorists.

WHERE: Bowling Green, Kentucky

**WHEN: MAY 2011** 

**HOW**: Fingerprints were lifted from an unexploded IED in 2005 and subsequently loaded into the DoD database. Database was not available to DoH until 2010 at which time DoH began rescreening refugee data with the DoD database. Alwan's fingerprints in DoH database matched the ones found in the DoD database originally from the IED.

WHY IS THIS IMPORTANT: Highlights the importance of forensic science to both the fight downrange and force protection and anti-terrorism efforts within the US borders. BUT...also highlights how critical it is for government agencies to share relevant data and ensure cooperation of effort.

**FUTURE PREVENTION**: DoD and DoH have signed an MOU authorizing the sharing of certain biometric data. DoD and DoJ have similar agreements WRT fingerprints and DNA.

<sup>\* &</sup>quot;Delay in Fingerprint Processing Allows Terrorist in Country" http://www.forensicmag.com/news/delay-fingerprint-processingallows-terrorist-country

#### **OPMG Forensics Branch**



#### **Mission & Manning**

**Mission**: Manage and direct all forensic-related issues and programs for Headquarters Department of the Army, Office of the Provost Marshal General (PMG) in its execution of a unique national-level forensics program supporting DoD, interagency, and allied customers.

Branch Chief – Mr. John Manson (GS-15)
Deputy – MAJ Jennifer Schroeder
Senior Analyst – Mr. Scott Brauner (Ctr)

#### **Major Programs**

- Expeditionary Forensics:
  - NIEF (JUONS 404): Lab in CENTCOM AO with TEYE partners.
  - AFRICOM: USACIL conducting assessment
  - EXIT (JUONS 474): CEXC support to OND through 31 DEC 11
  - EFL/JEFF: EFL transition in AFG beginning SEP 11
- DODD Defense Forensics Enterprise (DFE): Establishes the Army as the DoD Executive Agent for forensics (minus technical chem/nuclear forensics). SECARMY likely to designate PMG as the Responsible Official (RO) for forensics programs and policy.

#### **Current Issues**

- Development of Forensics Strategic Engagement Plan (SEP & Transition from OCO funded "ad hoc" expeditionary capabilities to funded and BASE Program of Record)
- Working ICW USMC to develop MAGTF Expeditionary Forensic Capability

  – IdOps Strategy and Implementation Plan
- USD (AT&L) sponsored Defense Forensic Enterprise Architecture(s) and Defense Forensic Network (DFN) projects

### **OPMG Forensics Branch POC**

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