

# I MEF Forward: Science and Technology Observations

Presented to: Office of DDR&E

Presented by: I MEF Fwd G9 (Post-RIP/TOA)

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# Background

- I MEF Fwd = Multi National Force – West (MNF-W)
- MNF-W Area of Operations = Al Anbar Province
- OIF 05-07, Feb 06 - Feb 07:
  - CG, I MEF Fwd: MajGen Richard Zilmer
  - DCG (Operations), I MEF Fwd: MajGen Robert Neller
  - DCG (Support), I MEF Fwd: BGen David Reist
  - AC/S G9: Col Martin LaPierre
  - Science Advisor: Mr. Franz Gayl

# Threat

- **Highly adaptive AIF threat:**
  - TTPs adjusted within days and hours
  - Speed of TTP iteration is a major AIF strength
  - Technical innovation and field expediency high
  - Universal AIF internet and media access assumed
- **IEDs top cause of MNF-W casualties:**
  - RC IEDs being replaced by CW and VO IEDs
  - Larger number of EFPs anticipated in MNF-W AOR soon
  - Targeting focus on operational vice logistics movements
- **Sniper attacks on rise as CIED improves**
- **SAF and IDF attacks remain persistent threats**
- **Weaponized UAVs anticipated**

# Outstanding Urgent Deficiencies

- **Persistent AOR-wide surveillance:**
  - 1. Scan Eagle UAVs
  - 2. Networked Video COP and Warehouse
  - 3. Tandem Camera-Equipped Tower
  - 4. Platform Mobility for Offensive COIN
- **CIED and sniper protection:**
  - 1. MRAP replacements for M1114s
  - 2. Kinetic and non-kinetic predet capabilities
  - 3. Escalation of Force (EOF) mitigation tools
  - 4. Multi spectral RF and optical stand-off threat detection capabilities
  - 5. Machine-assisted, in-stride pattern analysis capabilities
  - 6. Spoiling operation capabilities to deny IAF perceived sanctuary

# Needs Process Experience

- **Over 130 I MEF Fwd JUONS-UUNS submissions:**
  - Low combined fill rate – JUONS and UUNS both <10%
  - Before Nov 06 JUONSs frequently languished at MNC-I
  - UUNSs cancelled, delayed, or solutions not what was asked for
  - Tandem JUONS and UUNS submissions routine to increase odds
- **CoS CENTCOM intervened to speed JUONS:**
  - JUONS urgency at MNC-I and MNF-I restored
  - II MEF now benefiting from CoS CENTCOM's action on JUONS process
- **Joint Staff actions always rapid and supportive**
- **JRAC actions always rapid and supportive**
- **UUNS process remains challenging:**
  - Process worship cripples operating forces
  - Civilian middle management lacks technical and operational currency
  - Risk-averse civilian middle management defaults to process controls
  - Mine Resistant Ambush Protected Vehicles (MRAP) delayed
  - Unmanned Arial Vehicles (UAVs) delayed
  - Ground Based Observation and Surveillance System (G-BOSS) delayed
  - Many other urgently needed capabilities delayed

# Relevance for DDR&E and S&T

- **JUONS fulfillment and S&T investment:**
  - JRAC understandably not chartered to initiate longer term S&T
  - JUONS designed for rapid procurement of mature capabilities
  - Still, later JUONS spirals often have S&T implications
  - Lead time is required for rapid and timely S&T maturation
  - OSD lacks a JRAC-like mechanism to enforce Service S&T follow-up
- **S&T insight of Service HQs deficient:**
  - Acquisition expertise and process-oriented, risk-averse mentality valued
  - Ever-less organic-independent physics and engineering insight
  - Losing indepent uninformed insight into high payoff opportunities
  - Dependence on interested outsiders for S&T recommendations
  - HQ decision maker staffs appear to default to lab priorities
  - Services' in-house lab interests define the Service HQ S&T horizons
  - Industry IRAD and Joint efforts frequently dismissed by Service labs
- **S&T-related recommendations:**
  - Provide JRAC a mechanism to insure JUONS-supportive Service S&T
  - Legislation needed to educate and retain a substantial uninformed S&T cadre
  - Legislation needed for CENTCOM RDT&E in the spirit of SOCOM's MFP

# General Observations WRT Needs

- **IMEF Fwd Operators Defined Solutions:**
  - Need for speed to get ahead of AIF
  - Operators know the requirements
  - CG expected staff to do tech research and define solutions
  - Broad G9 technology field of regard (Labs, Academia, Industry, DARPA)
- **MNF-W needs competed against funded programs:**
  - Angel Fire vs Constant Hawk
  - MASDANS vs Counter Sniper Vehicle
  - G-BOSS vs CRAM/RAID
  - ScanEagle vs Spyhawk
  - SUCAV vs Warrior UAV from TF Odin
  - Penetradar IRIS vs GSSI Road Scan
  - MRAP vs up-armor programs and ONR initiative
  - Terramax vs Forerunner
- **Developers resist divergent operator needs:**
  - Resistance costs time
  - Unnecessary delays cause U.S. friendly and innocent Iraqi deaths and injuries