

Warfighting Innovation in the Pacific



*Marine Forces Pacific
Experimentation Center (MEC)*

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MEC Background

1993 – MARFORPAC Staff created vision for Innovation in the Pacific

1995 - CMC Established Commandant's Warfighting Lab (ALMAR 305/95)

1996 - MFP and MFL Established Force Commander's Warfighting Labs (MFP/MFL letter of 13 March 96)

1998 - Force Warfighting Lab (Pacific) Chartered Signed by LtGen Fulford

1999 - Force Warfighting Lab Experimentation Projects Initiated

2001 - Name Changed to MFP Experimentation Center (MEC)

"LtGen Libutti – This is Great Stuff. Keep me posted!" Adm Blair



PACOM Guidance

Adm Dennis Blair Comments:

- “**Transformation means continuous change** – doctrine, operations, personnel, material, leadership, facilities – all of it. **This requires continuous Experimentation.**”
- “**Experiment as we exercise and operate.**”
- “We will never determine the best concepts, doctrine, and capability requirements while sitting around tables, much less in COEAs. **The real test is in the field.**”
- “We need to manage risk in program development by **getting systems into the hands of operators early.**”
- “If we only rely on the acquisition process, we will never achieve our potential for force transformation.”
- “Again we demonstrated that we can rapidly field the technology to give our forces required capabilities when we **get the engineers together with the operators.**”



MEC Vision

- ***One Stop Shopping: Provide venue, tool sets, and coordination planning for Naval Experiments – Demonstrations – Assessments in MFP AOR***
 - *Demo/LTA planning*
 - *Test Development*
 - *Assessment Tools; e.g., CNA*
- ***Strategic Alliance: Integrate Coalition, PACOM, CENTCOM, MFP Operational Forces, S&T, MCSC and USMC functional Advocates***
- ***Experimentation: test, experiment, demonstrate and assess technologies***
 - *Provide operational input/test bed*
 - *Honest Broker*
 - *Develop advance concepts of operations*
 - *Leverage outside interests, funds, & advancements*



MEC Mission

To serve as a focal point for MFP transformation and experimentation throughout the Pacific and Central theaters

Priorities:

- ✓ Articulate and Validate MFP Requirements*
- ✓ Establish Experimentation Process and Projects Base*
- ✓ Demonstrate/Assess Technologies in Uncontrolled Environment
(Align Experiments with Exercises)*



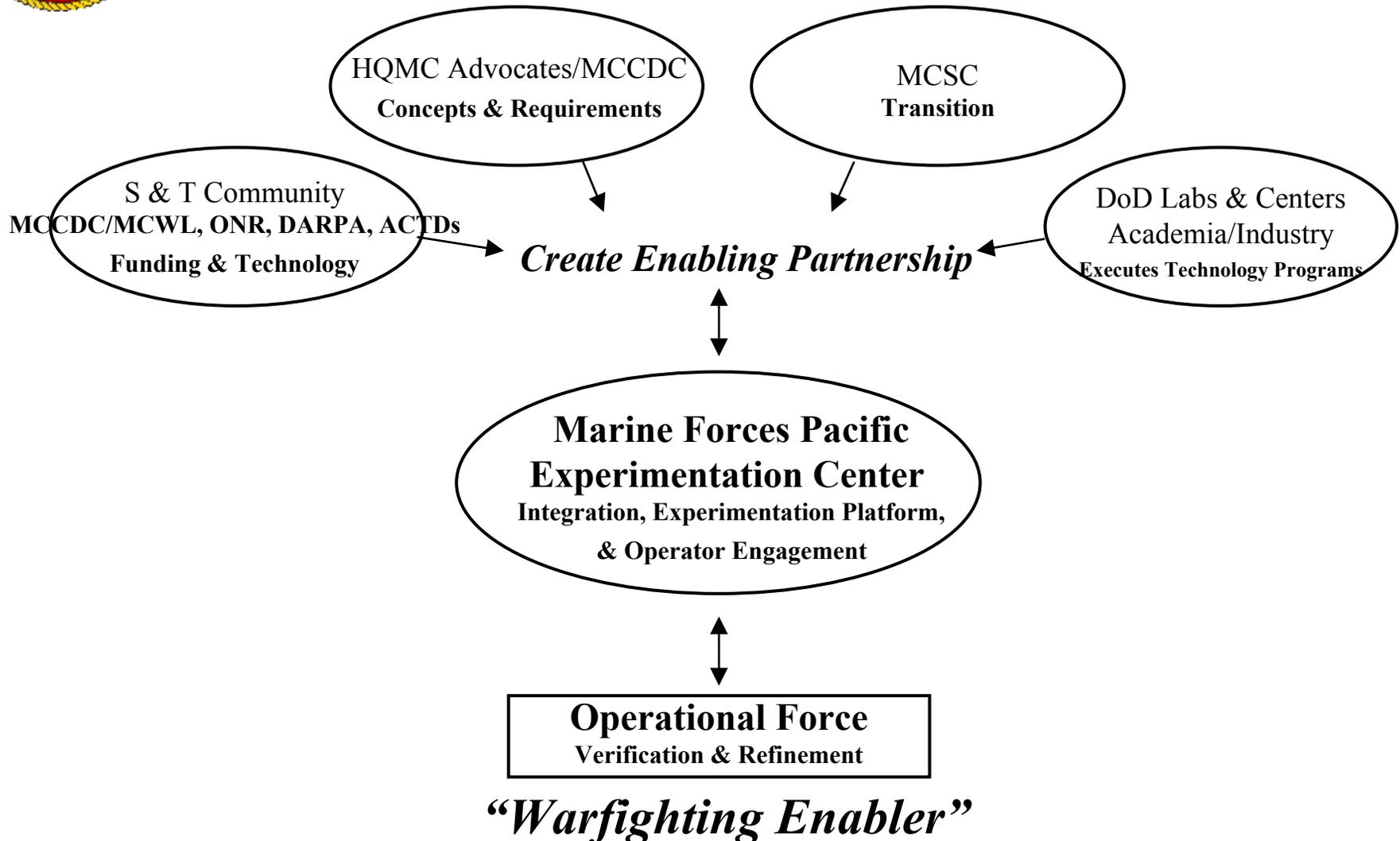
MEC Partnerships

Team With the Technology Community

- *Technical Community Provides the Technical Expertise and \$\$ and Executes the Technical Program*
- *MEC Provides the Operational Requirement, Experimentation Platform (in form of exercises) and Military Utility Assessments*

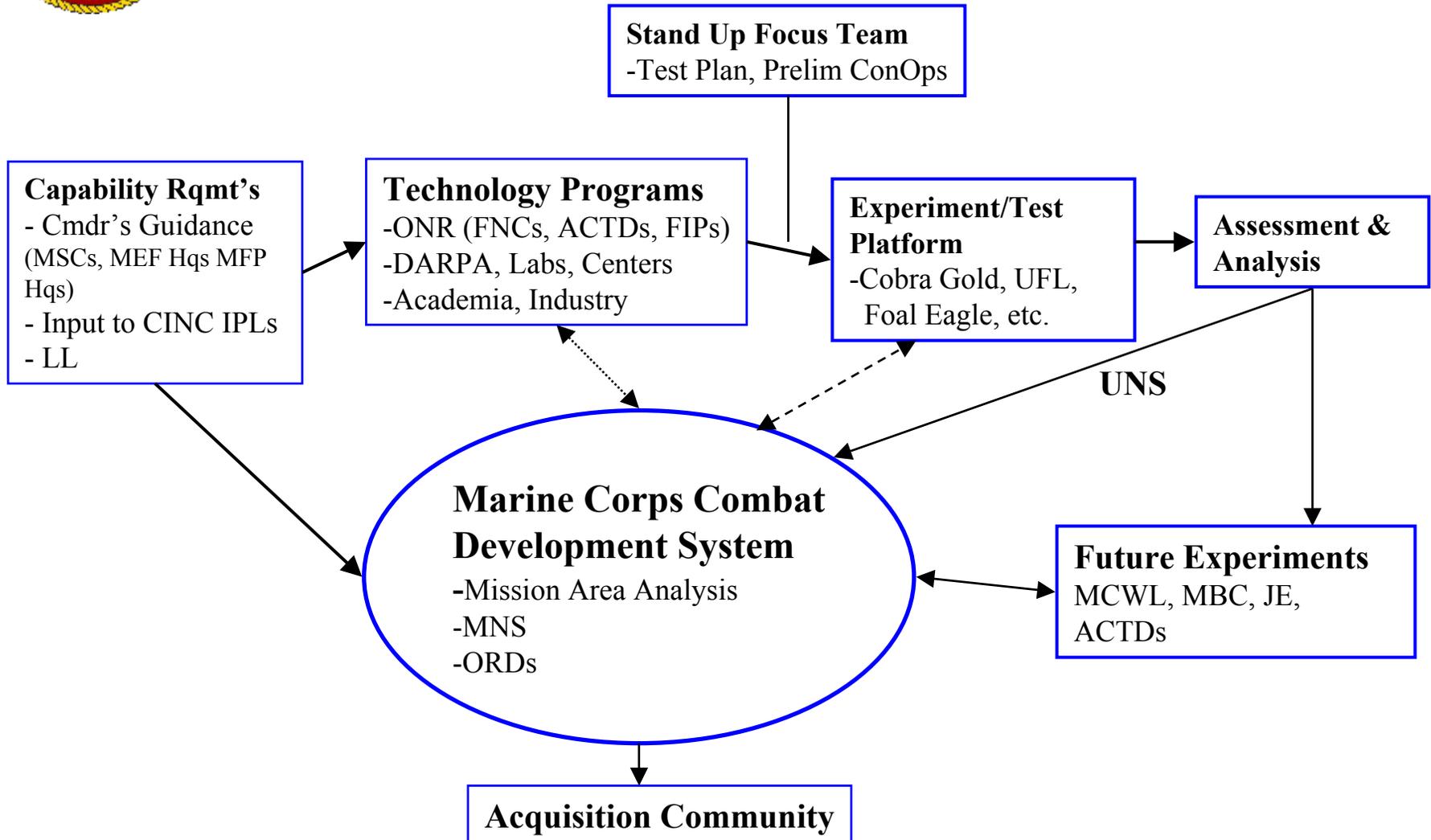


MEC Partnerships





MEC Process Model





Past Experiments/Initiatives

- *D-Day Mobile Fuel Distribution (RIMPAC (E) 00, Foal Eagle 00)*
- *Korean/English Translators - Powerpoint Slides (UFL 00, UFL 03)*
- *Alternative Power Sources (CAXs)*
- *Logistics Modeling and Simulation (UFL 01)*
- *Information Assurance (RSO&I 02)*
- *Voice to Voice Machine Language Translation (Cobra Gold 02, JWID 02, UFL 02, Cobra Gold 03)*
- *Total Asset Visibility (Cobra Gold/Freedom Banner 02, 31st MEU)*
- *EX 45 Gunmount (Quantico, K-Bay 02)*
- *CLC2S (PTA, Cobra Gold 03, Crocodile/Freedom Banner 03)*
- *Ammunition Logistics – ULAS (CAX1-03, PTA, CG 03), TTPs ISO ILC Objectives, ULAS>CLC2S*



MEC Initiatives

Current and planned projects

- **LASER**
- **LOG C2**
- **Joint Early Entry Package**
- **Gladiator**
- **Ex45 Gunmount for HSV**
- **Project Albert Agent Based M&S**
- **S-Gate Biometrics**
- **Audio Spotting**
- **Seabee Technology and Exercise Support**
- **Alternative Power Sources**
- **Micro-Air Vehicle ACTD Coordination**

Potential Projects

- **Sense and Response**
- **Micro-Air Vehicle ACTD Support**
- **Future Tactical Truck System ACTD Support**
- **JHAMM ACTD Support**



Language and Speech Exploitation Resources Advanced Concepts Technology Demonstration



**Task: Act as the Co-Operational
Manager for the LASER ACTD**

**Provide Military Utility Assessments
For LASER Technologies and
Products**



**Provide Language Translation Services:
Speech to Speech, Text to Text, Interactive Collaboration**

Experimentation Platforms:

- Yama Sakura 03**
- Cobra Gold 03**
- Vigilant Shield 03**
- JWID 03**
- Ulchi Focus Lens 03**
- Bright Star 04**

Operational Units Supported:

**4th Marines, 3rd MARDIV, III MEF G2,
MFP Principal Staff, MARCENT,
USARPAC, INSCOM**

Sponsor:

OSD, PACOM, US Army BCBL, SOCOM

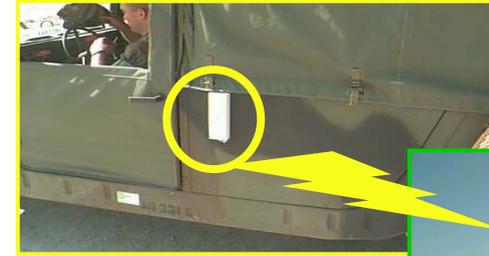




Logistics Programs Support



**Task: Develop Experimentation Plans
And Perform Operational
Assessments for Logistic Command
And Control and Integrated
Logistics Capability Programs**



**Provide Logistics planning
tool for MAGTF**

Experimentation Platforms:

- HCAX1 03**
- CG03**
- HCAX2 03**
- Freedom Banner/Crocodile 03**

Operational Units Supported:

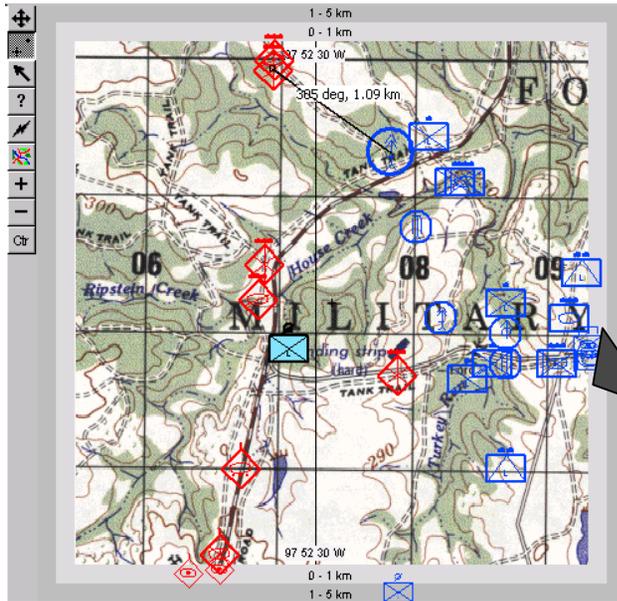
**CSSG3, 3d FSSG, 1st FSSG, 3rd Marines,
III MEF G4, MFP G4**

Sponsors:

**HQMC I&L, MCSC, MCWL, INCD,
DARPA**



Dismounted Situational Awareness





Vest Lights



**Operational Units Supported:
MFP PMO, G3, 3rd Marines**

VestLyte[™] By Lumenyte[®]

This product is designed to be worn or used as a protective marker system for personnel, equipment and traffic control. Visibly as bright as any disposable chemical light.

- 360 ° illumination
- Available in white, red, blue, green & amber.
- Available in Infra Red illumination for Night Vision applications.
- On / Off capability.
- Projected battery life – 1 week + solid illumination.
- Uses 2 standard AA batteries.
- Replace hundreds of chemical light sticks.
- No Hazmat waste.
- Advancing to Coast Guard Certification.
- Waterproof to 250 feet.
- Fuel, oil and solvent resistant.
- Impact resistant.
- Small size / light weight.
- Interchangeable LED cups to change color capability from the same VestLyte.
- Vest clip and lanyard connection.
- Price - \$30.00 less batteries.
 - Quantity pricing available, 50/100/500 units.
 - Rechargeable batteries with charger available.





Joint Early Entry Package



**Task: Provide Program Manager
And Operational Assessment Support
For the Joint Early Entry Package
Program.**



*Provide Early Entry Forces with Air Deployable,
Mobile C⁴ at the "Point of Decision"*

Experimentation Platforms:

- HCAX1 04**
- Cobra Gold 04**

Operational Units Supported:

3rd MARDIV, III MEF, MFP

Sponsors:

ONR, OSD, PACOM



JEEP Technical Approach

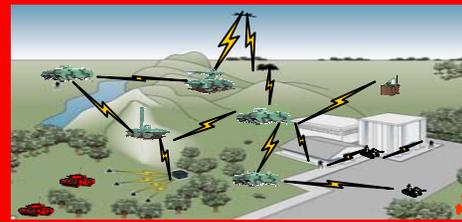
Integrate Three Established Technical Areas

VEHICLE



- LIGHTWEIGHT
- AIR TRANSPORTABLE

COMMS



- SECURE
- JTF ORGANIC
- TACTICAL
- HIGH THROUGHPUT
- IP BASED NETWORK
- SATCOM CAPABLE
- MODULAR/RECONFIGURABLE

C³



- HIGH FIDELITY BLUE/RED LOCATION
- PRECISION GUIDED INFORMATION REQUESTS & DELIVERY
- SHARED SITUATIONAL AWARENESS
- COLLABORATIVE PLANNING

INTEGRATED

RAPIDLY DEPLOYABLE

ON-THE-MOVE

SELF SUFFICIENT



COMMARFORPAC Support

JOINT EARLY ENTRY PACKAGE

R 200001Z NOV 01 ZYBPSN983388E39

RATUZYUW RUHEHMS0013 3240500-0000--RUHEHMS.
ZNR 00000 ZOI RHMMCB3979 3240610
R 200001Z NOV 01 ZYB PSM 983388E39
FM COMMARFORPAC//COMDR//
TO RHMFIUU/CMC WASHINGTON DC//PFO/C4//
RUEACMC/CMC WASHINGTON DC//PFO/C4//
RHMFIUU/CG MCCDC QUANTICO VA//CG//
RULSMCC/CG MCCDC QUANTICO VA//CG//
RHMFIUU/COMMARCORSYS COM QUANTICO VA//COMDR//
RULSMCF/COMMARCORSYS COM QUANTICO VA//COMDR//
RHMFIUU/CG MCWL QUANTICO VA//CG//
RULSMCE/CG MCWL QUANTICO VA//CG//
INFO RHMFIUU/CDRUSARPAC FT SHAFTER HI//JJJ//
RUEAHIC/CDRUSARPAC FT SHAFTER HI//JJJ//
RHMFIUU/COMMARFORLANT//COMDR//
RDCBLFB/COMMARFORLANT//COMDR//
RHMFIUU/CG I MEE//CG//
RUWICBA/CG I MEE//CG//
RHMFIUU/COMMARFORRES//COMDR//
RUCCFVY/COMMARFORRES//COMDR//
RHMFIUU/CG III MEE//CG//
RUHBABA/CG III MEE//CG//
RHMFIUU/CG II MEE//CG//
RUCKMEA/CG II MEE//CG//
RHMFIUU/CNR ARLINGTON VA//JJJ//
RULSOCA/CNR ARLINGTON VA//JJJ//
RHMFIUU/COMMARFORPAC//COMDR//
RUHEHMS/COMMARFORPAC//COMDR//
BT

UNCLAS PERSONAL FOR LTGEN BEDARD (LTGEN HANLON, MAJGEN SEL) SHEA, BGEN FEIGLEY, BGEN CATTO INFO LIG SMITH, LTGEN AYRES, LTGEN HAGEE, LTGEN MCCARTHY, LTGEN GREGSON, MAJGEN BERNDT, RADM SOHEN FROM LTGEN HAILSTON. DELIVER DURING NORMAL WORKING HOURS. //N01000//

MSGID//GENADMIN/COMMARFORPAC//COMDR//
SUBJ//JOINT EARLY ENTRY PACKAGE (JEEP) ACTD PROPOSAL//
RMKS//1. GENERALS, IN SUPPORT OF PACOM'S BROAD BASED TRANSFORMATION EFFORTS, MFP AND PACOM RECENTLY CO-HOSTED TWO WORKSHOPS THAT FOCUSED ON TRANSFORMATION OF EARLY ENTRY ASSAULT FORCES. REPRESENTATIVES FROM OSD, US ARMY BATTLE LABS, USARPAC, OMR, PACOM, CINCPACFLT, III MEF AND MP PARTICIPATED IN THE WORKSHOPS. THE PRODUCT OF THE WORKSHOPS IS A PROPOSED ACTD TITLED JOINT EARLY ENTRY PACKAGE (JEEP) THAT WILL ULTIMATELY DEMONSTRATE AN ASSAULT COMMAND AND CONTROL VEHICLE WITH ON-THE-MOVE WIDEBAND SATCOM CAPABILITY.

2. JEEP ADDRESSES A GAP IN DATA COMMUNICATIONS FOR CONTROLLING JOINT FIRES AND MAINTAINING SITUATIONAL AWARENESS DURING THE FIRST HOURS AND DAYS OF AN ASSAULT. ITS GOAL IS A CRITICALLY NEEDED JOINT, RAPIDLY DEPLOYABLE, AND SELF SUFFICIENT GROUND C4ISR VEHICLE FOR EARLY ENTRY FORCES AT THE BRIGADE, BATTALION AND MEU ECHELONS. THE FOCUS IS TO INCORPORATE MATURING ADVANCED TECHNOLOGIES INTO THE NEXT GENERATION LIGHTWEIGHT-FIGHTING VEHICLE WITH C4I TAILORED FOR EARLY ENTRY DISMOUNTED OPERATIONS.

3. I STRONGLY RECOMMEND THAT JEEP CAPABILITIES BE AGGRESSIVELY PURSUED TO ENABLE OUR KICK DOWN THE DOOR MISSION. THIS MUST BE A JOINT EFFORT BETWEEN THE SERVICES TO ACHIEVE ITS FULL POTENTIAL. TO DEMONSTRATE MY FULL COMMITMENT, I HAVE DIRECTED MY STAFF TO PROVIDE BRIEFINGS AT YOUR EARLIEST CONVENIENCE TO SOLICIT YOUR ADVICE AND GUIDANCE. IN ADDITION, MFP IS PREPARED TO ASSUME THE ROLE AS THE OPERATIONAL MANAGER IF THIS ACTD IS APPROVED.

4. WE LOOK FORWARD TO WORKING WITH YOU TO DEVELOP THIS REQUIRED CAPABILITY FOR THE MARINE CORPS AND DOD.

5. WARMEST REGARDS AND SEMPER FIDELIS, LTGEN HAILSTON.//

BT
#0013

"JEEP ADDRESSES A GAP IN DATA COMMUNICATIONS FOR CONTROLLING JOINT FIRES AND MAINTAINING SITUATIONAL AWARENESS DURING THE FIRST HOURS AND DAYS OF AN ASSAULT."



"I STRONGLY RECOMMEND THAT JEEP CAPABILITIES BE AGGRESSIVELY PURSUED TO ENABLE OUR KICK DOWN THE DOOR MISSION."



**LtGen Earl Hailston
Commander
Marine Forces Pacific**



NLW – Gladiator



Task: Provide Demonstration and Operational Assessment for ONR, MCCDC and MCSC NLW programs



Provide Wide area NLW Clearance



Experimentation Platforms:

- JWID 03, K-Bay Firing Range, HCAX04

Operational Units Supported:

3rd Marines, 3rd MARDIV, MFP PMO

Sponsors:

ONR, MCCDC, MCSC





**Remote
Control
Fighting**

EX45 Stabilized Gun Mount

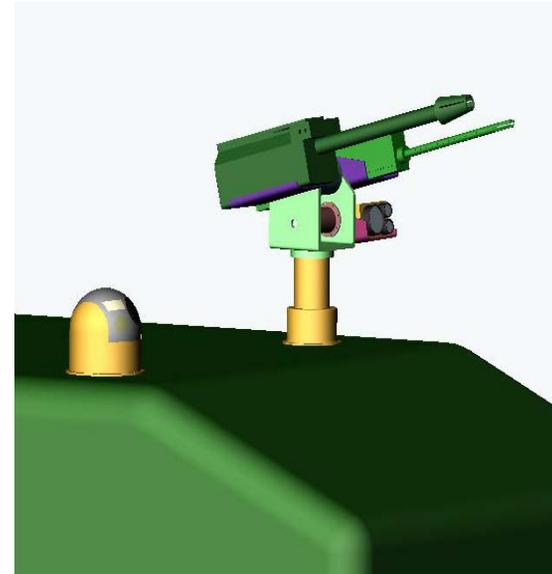


Gun Slinger

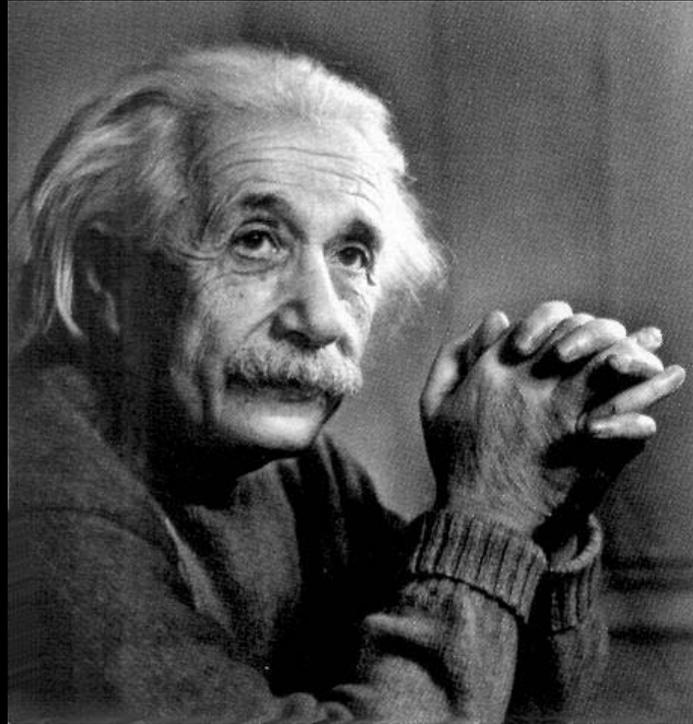
Overwatch ACTD Concept



Weaponized Overwatch Concept



- ◆ Provides all functionality of Overwatch
- ◆ Brings weapon to bear on target
- ◆ Reduces response timeline
- ◆ Reduces vulnerability
- ◆ Reduces manning



Project Albert

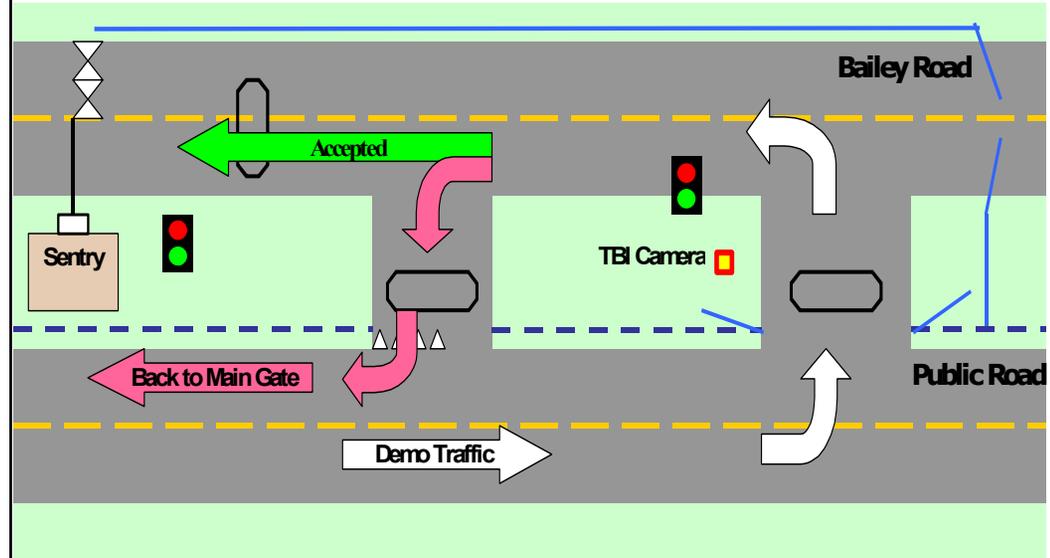


S-GATE

Security Gate Access Technical Evaluation



Task: To evaluate an integrated facial verification (FV) biometrics and radio frequency identification (RFID) system for identifying personnel and vehicle traffic through military bases.



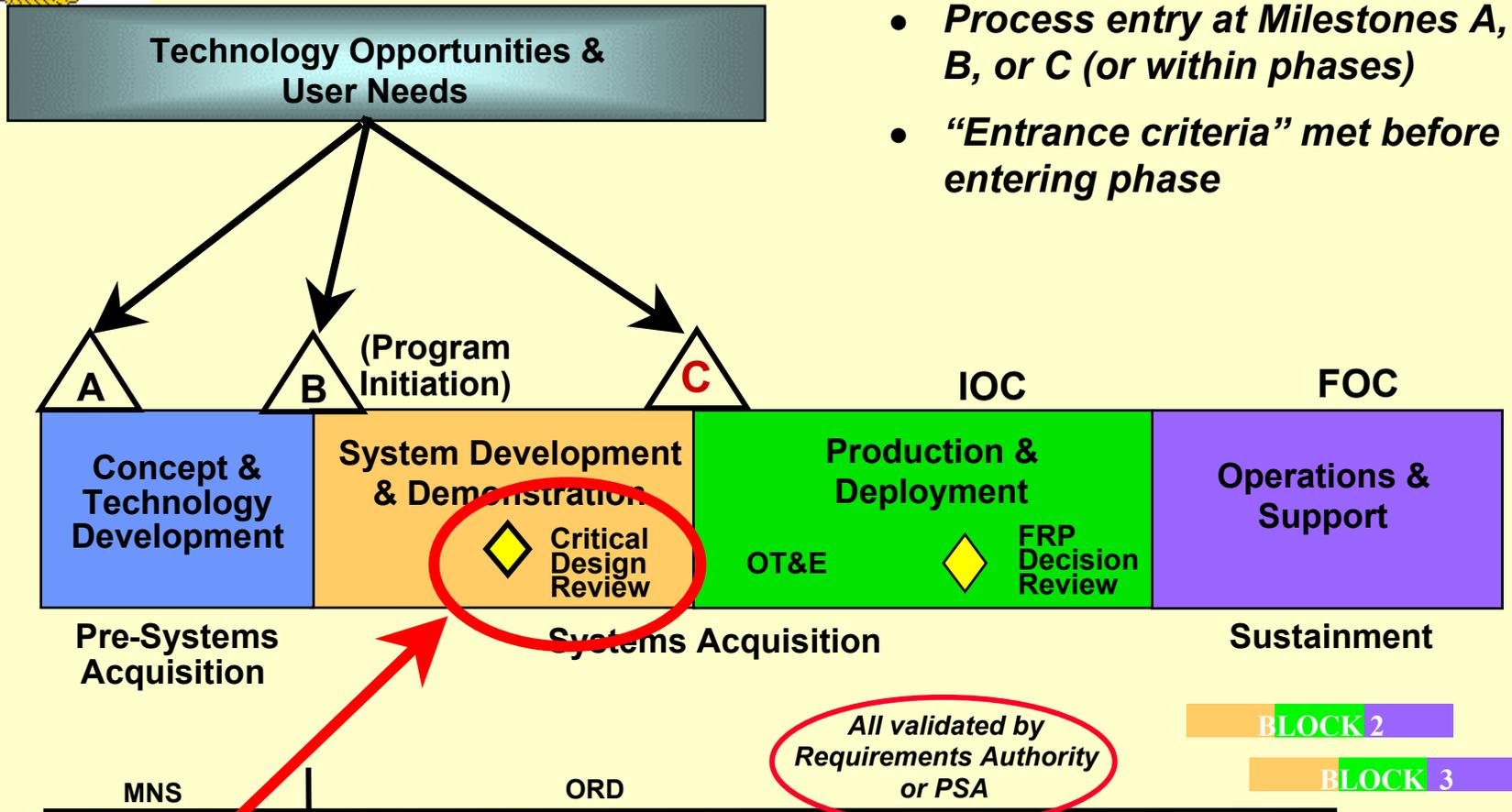
Experimentation Platform:

MCBH Camp H.M. Smith

**Operational Units Supported:
MCBH, MFP PMO**

Sponsor: NSWC Indian Head

THE 'Newer' 5000 MODEL



- *Process entry at Milestones A, B, or C (or within phases)*
- *“Entrance criteria” met before entering phase*

Relationship to Requirements Process

This is new!



Transformation Support

