



OIF Observations

Marine Corps Warfighting Lab
Liaison to
I Marine Expeditionary Force



Three Wars

- OIF I – I MEF and V Corps
- OIF I Phase IV – SASO
- OIF II – Insurgency







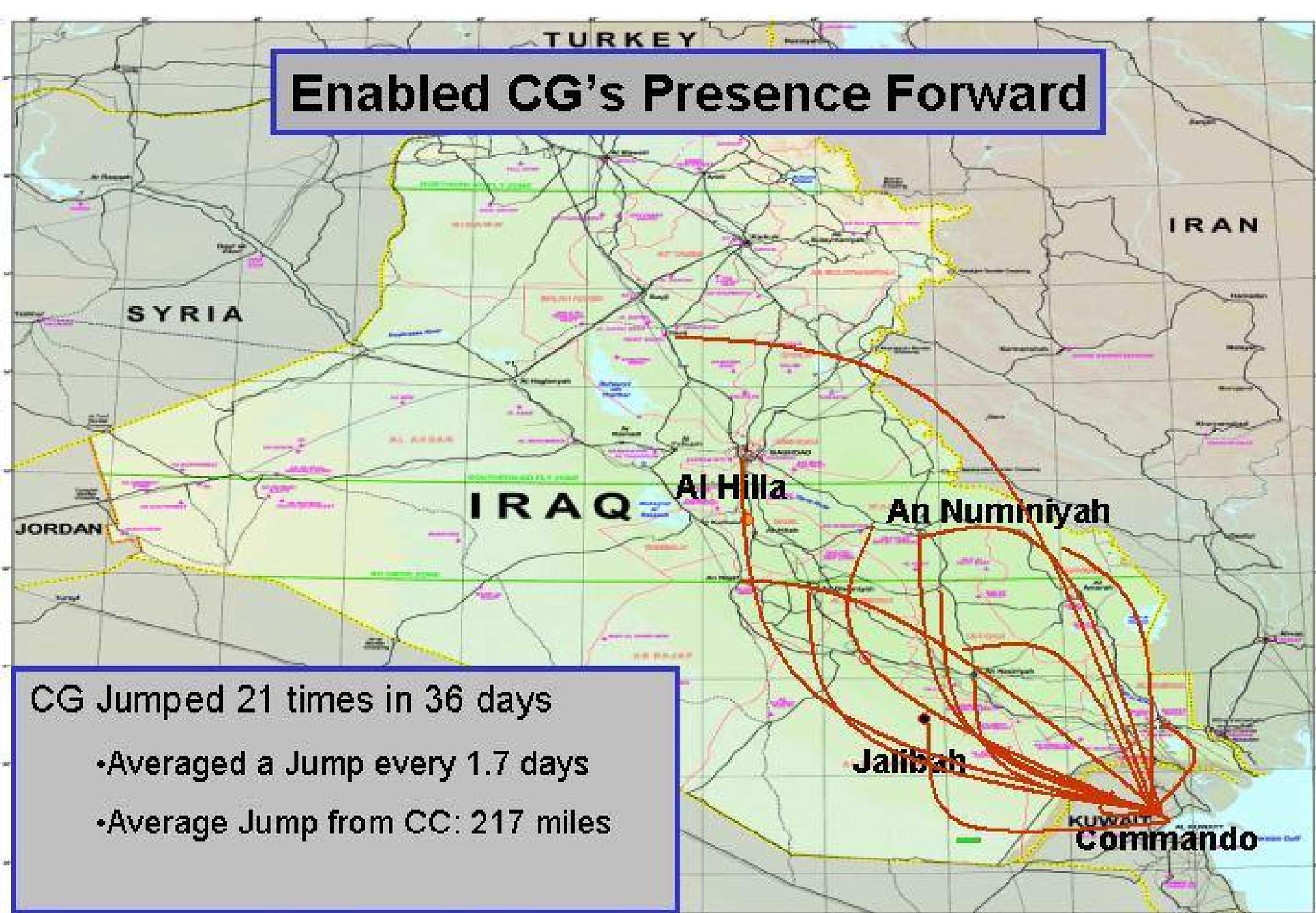
OIF Battlespace



- **Five months to prepare**
- **Maneuver warfare at its best!**
- **Mature theater**
- **First time I MEF had all tools in kitbag**
- **Distances and speed exceeded traditional Marine Corps expeditionary operational mindset ~ 200 miles!**



Enabled CG's Presence Forward



- CG Jumped 21 times in 36 days
- Averaged a Jump every 1.7 days
- Average Jump from CC: 217 miles



IRAQ
SUITABLE FOR REFERENCE PURPOSES ONLY
THE OFFICIAL PUBLICATION OF THE U.S. DEPARTMENT OF THE ARMY
GPO: 2004 O 484 000
5010-108-01
NO WARRANTY IS MADE FOR ANY OTHER PURPOSES

MAP SCALE - 1:1,200,000
PROJECTION: TRANSVERSE MERCATOR
ELLIPSOID & DATUM: WGS 84





Technology



- **Unmanned Air vehicles**
- **Sensor to shooter**
 - **Battle of Al Kut**
- **Blue PLI – MEF OpsO fought differently**
 - **BFT, EPLRS/MDACT, MTX, ETCS**
- **Sensor grids -- RSTA**



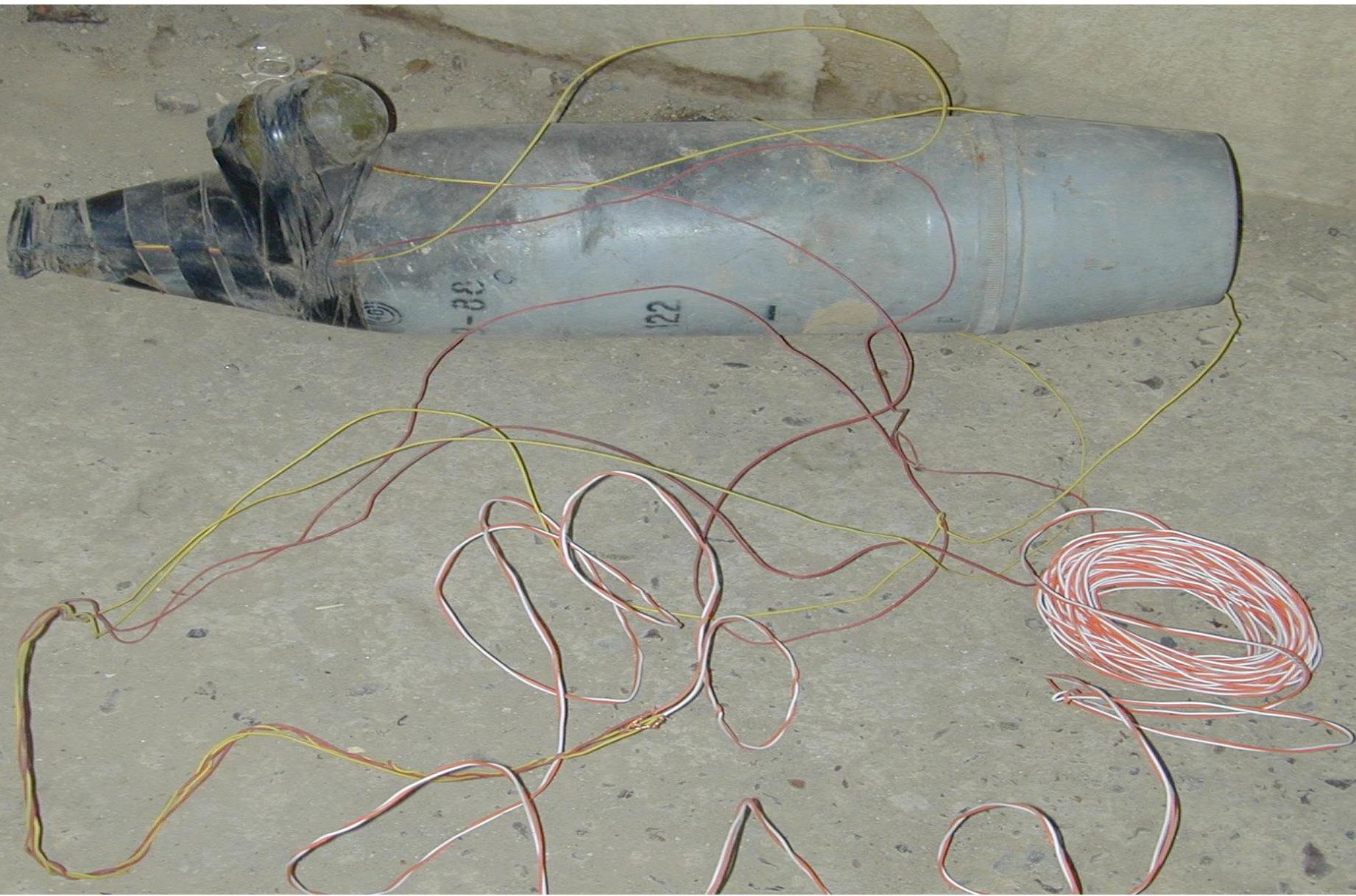


OIF II



- Identifying and defeating the insurgents
 - Petty criminals
 - Big-time crime
 - Foreign Fighters
 - Insurgents? In the hood





Logistic Lines



360 miles

Baghdad

400 miles

IRAQ

- ★ National Capital
- Province Capital
- City
- ✕ Airfield
- Primary Road

0 50 100
Miles



Technology



- **American Industry**
 - **No \$600.00 toilet seats**
 - **COTS!**
 - **GPS, Optics, ADPE**
 - **Unmatched!!**



FINE LINE BETWEEN A VISION AND A HALLUCINATION



ENGINEERS SOLUTION TO A GRUNTS PROBLEM????



The Marines



- **Innovative**
- **Understand the technology**
- **They can do more!**
- **Superior!!**

IT'S THE PEOPLE







Vehicle Armor



Kevlar blast blanket

Wooden bench provided center lined seating in the bed of the vehicle



2x4'' blocks inserted and wedged between frame and bed of HMMWV to provide a step to egress the vehicle



IFF Procedures

Glow Tape
Flag or arm
band

Glint
tape/Thermal tape

Thermal
Panel

Phoenix
Beacon or IR
Fire Fly



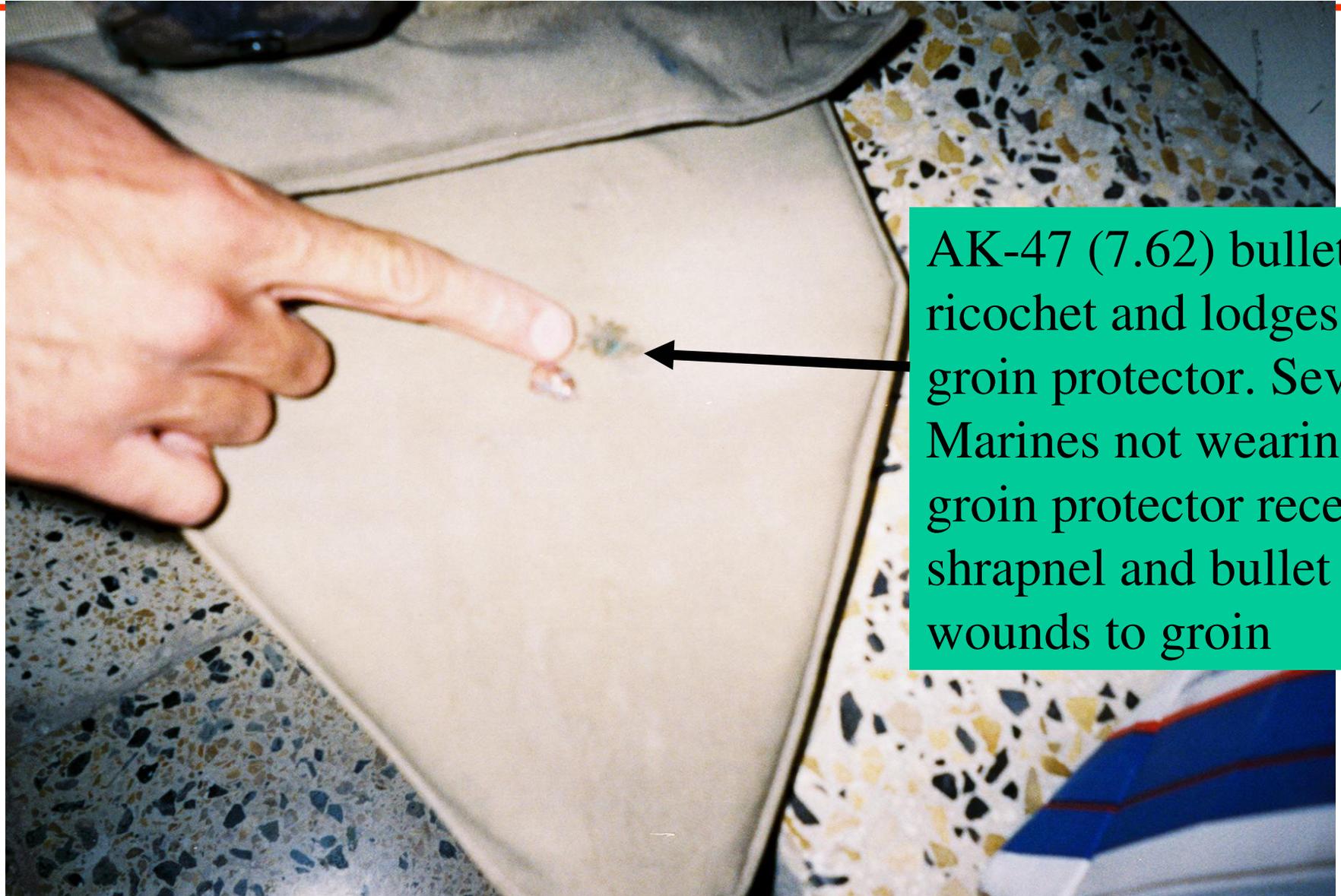


Ceradyne AP Plates/Kevlar





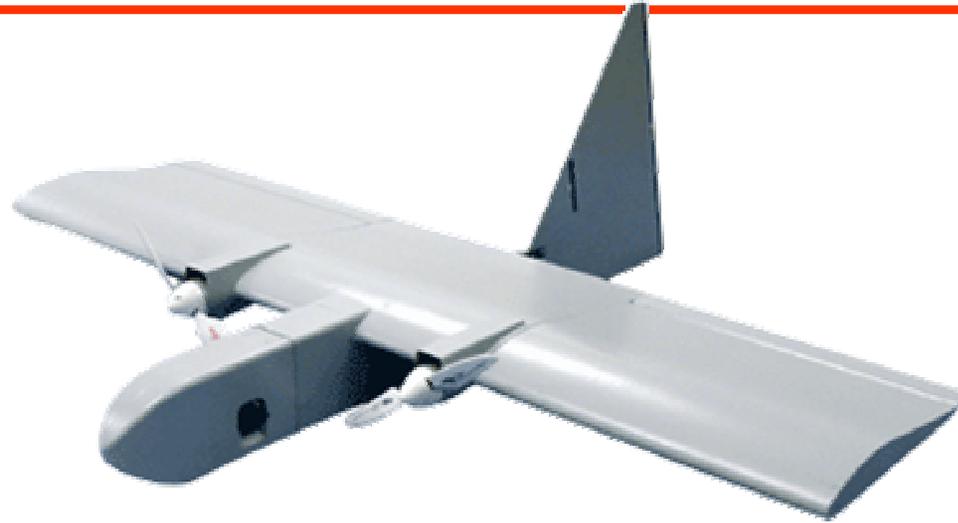
KEVLAR GROIN PROTECTOR



AK-47 (7.62) bullet ricochet and lodges in groin protector. Several Marines not wearing the groin protector received shrapnel and bullet wounds to groin



Dragon Eye



1st Recon Bn utilized Dragon Eye in support of several raids. The two man team took about 20 minutes to assemble the UAV and launch the aircraft. The UAV flew 50 minutes and conducted a route reconnaissance mission for the raid. The UAV also flew over the target area at 200 ft taking several pictures and producing a live video feed of the target site.



Dragon Eye



Marine observes what Dragon Eye is seeing via video glasses and Tough book computer



Marine holds antenna in the direction of Dragon Eye.



Optics and Sights



Universal
Night Sight
\$8,447.00

ITT
NIGHT
FORCE
\$5,225.00





6.8mm x 43 mm



6.8 Rem SPC



This is just what you have come to expect from a Barrett...
Bigger, Better, and Always Leading the Way.



Weapons Lights Eye Protection



- The majority of Marines commented that they didn't have enough weapons flashlights for conducting raids. Several Marines had purchased Surefire flashlights out of their own pocket.
- Marines need a flashlight with a pressure activated switch that can be mounted to the rail on the M-4 or M-16A4.

<i>Command and Control</i>	<i>Intell, Surveillance, Reconnaissance</i>	<i>Force Protection</i>	<i>Logistics</i>	<i>Operation Respond</i>
ETCS -- PLI	Optics	Armor vehicles	Vehicle Liners	6.8mm Receiver
UOC – C2	Sensors – Wide Area ISR	Disposable Robots	ERC – Vehicle Protection	Night Sights
Vocera – Paging	Scan Eagle – UAV	Gladiator – Bot	Dust abatement	EOD robots
Aerostats – C2	Silver Fox -- UAV	HALO – En arty Sound ranging	Environmental Units	Gunner’s Turret
AJCN – Comms	Dragon Eye – UAV	Vehicle X-Ray machines	IFAK – First Aid Kit	7.62mm rifle
PRR Squad Radio	FLIR – Aerostat ISR	Gunner’s Turret	Quik Clot	Automated EOD Pubs
MEF COC	Linguist Reachback	Aviation Flares	Center Seats for veh	EOD equipment
	Phreaselator	Jammers – IED	Comms	X-ray machines
	ACOG weapon sight	Gun Truck	Medical Block	Aviation Flares
	Biometric Automated Toolkit	Sniffers – Explosives	Forward Resuscitative Surgical Suite	Linguist support
		LRAD -- Acoustic	Logistic vehicles	Lower Body Armor
		Dragon Runner -- Bot	Expeditionary engineer Equipt	VRC 88 radio conversion
		Face Shields	In Transit Visibility	IED detectors
		War Dogs	Vehicle Barriers	Gear tips for deploying pers
		Lower Body Armor		Pioneer upgrade
		Veh Center Seats		
		Counter Sniper		

Color Code

 **New requirement or experimental**

 **Early fielding/commercial off-the-shelf**

 **System items for redistribution or acquisition**



Future Requirements



- **OTH/OTM communications**
- **Satellite based Blue Position Location**
- **Integrated interoperable systems**
 - 128 byte encryption for new systems
- **Multi-Level Security systems**
- **Quality low bandwidth Voice Over IP**
- **Imagery is a challenge**
- **In-transit visibility of logistics**
 - Frustrated cargo was...



Future Requirements



-
- **Battlespace Combat Identification is still not fixed**
 - **Data-mining/intelligent agents**
 - **Battlespace visualization tools for Stability And Support Operations**



Future Requirements



- **OIF II is the model**
 - **Collaboration between organizations -- resources, S&T, industry, academia, and acquisitions -- to make our Marines and sailors more lethal and survivable was tremendous...and they know it!!**
- **Larger urban training areas in more realistic environments**



You saved lives!!





Are We Making a Difference?



- Husaybah happened because Marines were making a difference.
- Civil Affairs teams
- I MEF Engineer Group – Seabees
- Medical personnel are amazing
- Reservists are truly integrated



The Future



It's still the people!!

From a letter written by a 6th Grader in the United States to the Marines in Al Anbar during OIF II:

“We are so proud of all of our military...And follow the Golden Rule of War, ‘Don’t get killed!!”

