COMMAND ELEMENT, II MARINE EXPEDITIONARY FORCE (FORWARD) ROUTING SHEET

Date: 31 MAY 2005

OPERATION CODE

A-APPROPRIATE ACTION
B-GUIDANCE
C-SIGNATURE
D-COMMENT
E-RECOMMENDATION
F-CONCURRENCE
G-INFORMATION
H-BILLET VALIDATION
I-INITIALS
J-DISPOSITION
K-DECISION
L-RETENTION
O-OTHER: COPY TO
X-ORIGINATOR

SUBJECT: OIF 04-06-075 LASER DAZZLERS

NATURE OF ACTION REQUIRED	ORIGINATOR INITIALS	DUE DATE
ROUTINE		
URGENT	EDD	

REFERENCE HELD BY (NAME, GRADE, OFFICE, PHONE)
Col Daniel, Edward D; MARCORSYSCOM LNO
DSN: DSN 318 3401 955

ROUTING-USE NUMBER TO SHOW ORDER OF ROUTING

RTG	OPR CODE	ADDRESSEES	DATE IN	DATE OUT	INITIALS CONCUR	INITIALS NON CONCUR
8	F,C	CG		6/5	[illegible]	
7	G	DCG		6/3	[illegible]	
6	I	CHIEF OF STAFF	6/2	6/2	[illegible]	
5	I	STAFF SEC	6/2	6/2	CRUZ	
		SGTMAJ				
		G-1				
		G-2				
4	I	G-3			[illegible]	
		G-4				
		G-5				
		G-6				
		G-8				
1	X	G-9				
		SJA				
		PAO				
		CHAP				
		MED				
		DENT				
		ADJ				
		COMPT				
		CO, MHG				
		FECC				
		IG				
		Eng O				
2	I	FP O	1 Jun 05		(LEW)	
		Ord O				
		IMO				
3	I	SupO	LJ			

REMARKS AND SIGNATURE

1 **Purpose**. To submit an Urgent Universal Need Statement (UUNS) originated by **II MEF FP Officer** for **Laser Dazzlers**.

2. **Background**. Operating forces identifying urgent needs for OIF 04-06 are required to submit an Urgent UNS through their chain of command.

3. **Action**. Request that II MEF FWD COS review, and initial the routing sheet and submit the document to II MEF FWD CG for signature.

Col Ed Daniel
II MEF UNS Coordinator
DSN 318 3401 955

Capt Villanueva
DSN 318 3401 956

3 June – Good idea; clean up the concept part. Tests will be undertaken supervision of unit commanders; reporting via chain of command.

DATE RECEIVED	FILE NUMBER	ROUTE NUMBER	ADVANCE ACTION COPY
	2601-05-05		

* DCG > COMMENTS INCORPORATED

UNIVERSAL NEED STATEMENT (UNS)
Part 1a of 5 - Originator's Request

CDTS Short Title	
CDTS#	Date CDTS # assigned

Name (Last, First, Initial) Harmon, Jimmie P.		Rank/Grade LtCol	Phone DSN 302-3601-341			FAX	
Available for phone or personal follow-up?	Yes	Interested in participation on Solution Course of Action IPT?	Yes	Request UNS status updates by e-mail?	Yes	E-mail Harmon.JP@mnf-wiraq.usmc.mil	RUC M94500

Type of Need (select one that best describes the need)

ADD a new capability that does not exist	XX	IMPROVE or FIX an existing capability		REMOVE an existing capability	

Description of Need Describe the nature of the need and the cause (if known). Explain how the need was identified (operational deployment, training exercise, experimentation, formal study, mission area analysis, observed operating deficiencies).

THIS IS A PRIORITY URGENT UNS SUBMITTED IN SUPPORT OF OIF 04-06.

Requirement:
- Laser Dazzlers

Example of existing capability:
- Laser Dazzler
LE Systems, Inc. (LESI)
91 Prestige Park Circle, Suite 5, East Hartford, CT 06108
(860) 291-9630 (W), (860) 291-9475 (F)
http://laserdazzler.net/
- Source: MARCENT
- POC: COL Flynn, Michael P, MARCENT FPO, DSN 651-8007, FlynnMP@marcent.usmc.smil.mil

Quantity/Estimated Cost:
- (200) CHP Laser Dazzlers: $6,750.00 EA
- (200) Standard Laser Dazzlers: $3,312.00 EA
- Total requested: (400) Laser Dazzlers
- Total Estimated Price = **$2,012,400.00**

Unit: II Marine Expeditionary Force Forward (MNF-W) Anti-Terrorism/Force Protection Special Programs Office.

Estimate Run Time:
- CHP Laser Dazzler: 90 minutes
- Standard Laser Dazzler: 6 hours

Maintenance/Sustainment:
- II MEF requires organic repair capability. Training in CONUS no charge, Training OCONUS is $1200/day.
- Changing of batteries, battery pack is $30.00 EA.

New Equipment Training:
- Training in CONUS no charge, Training OCONUS is $1200/day.

Distribution:

- II MEF Headquarters Group	M94500	25/25
- 5th CAG	M94500	25/25
- 2d MarDiv Force Protection	M94400	75/75
- 2d MP Bn	M94416	25/25
- MWHS-2	M94320	25/25
- H&S BN 2ND MLB	M94203	25/25

Concept of Employment:
- A field user level testing of emerging technology to determine the usefulness, sustainability and benefits of wide spread fielding within MNF-W. Technology would enable Marine Corps enhanced capability to warn approaching motorists to slow down or stop as they were approaching check points, convoys or ECP operations.

UNIVERSAL NEED STATEMENT (UNS)
Part 1a of 5 - Originator's Request

CDTS Short Title	
CDTS#	Date CDTS # assigned

-The concept of operations is to employ CHP Laser Dazzlers to the MSC Commanders for field user testing and evaluation.
- These Marines Commands' will execute testing and feed their results back up to the MNF-W via the AT/FP Officer network for data entry and trend analysis. The MNF-W AT/FP Office will leverage that data to perform overall systemic analyses of individual records and determine if the new technology warrants more extended procurement and acquisition.

When Needed

URGENT	X	6 Months		1 Year		2 Years		5 Years		10 Years		Other (date)

Rationale Describe why the need requires resolution in timeframe selected (e.g., safety issues, Congressional mandate, etc.)

- Marine Forces in the MNF-W AO have recently experienced a string of lethal encounters and casualties induced from Marines firing flares at approaching vehicles to warn them to stop or to slow down. That TTP has caused one fatality and several injuries among the Iraqi civilian population
- The Laser Dazzler will allow Marines to gain the undivided attention of approaching vehicles without risking injury or death of innocent civilians, and because the Laser Dazzler may be mounted on the Marine's weapon, the very rapid escalation of force is possible as the Marine will be aiming his weapon at the vehicle (signaling his intent to use force) while he simultaneously aims the Laser Dazzler at the driver to warn him to stop.
- This capability is essential to protective force operations and in identifying individuals attempting to use stealth to elude detection.

Describe mission or task to be accomplished that is related to the need

- Marine Forces manning Check Points, ECPs, Convoys and Perimeter security positions need a non-lethal, non-damaging method of gaining the attention of Iraqis in order to warn them that they are entering a Lethal Force Authorized Zone. The Laser Dazzlers provide up to 400 meters stand off ability, to safely focus an eye safe laser at the approaching person to warn them.
- The Laser Dazzlers will allow for increased stand off and insured warning that will prevent unwarranted escalation of force and safe guard the lives of innocent civilians who are getting too close to Marine positions.

How does the need improve your ability to perform the mission or task?

- Currently the only methods available to Marine Forces to accomplish this mission are flares, smoke and flash bangs.
- Smoke while very visible also obscures the Marines vision and may in fact mask the movement of enemy forces who will use the warning smoke to move closer to the Marine positions.
- Flares can now only be fire straight up. This method has already proven very ineffective and during hours of day light goes unnoticed. This is the same method that allowed a recent Blue on Blue incident in Fallujah when Marine Forces could not warn a private security convoy to slow down and stop.
- Flash Bangs are effective at static positions, but when used by a moving convoy to warn off other motorists may actually roll under the car explode behind the vehicle, denying the driver any chance to see the device.

If the need is not satisfied, how will it affect your ability to perform the mission or task?

- Force Protection in MNF-W AOR will be reduced.
- Innocent civilians, and even other Blue Forces, may inadvertently be killed when the approach too fast or too close to a Marine position without noticing the warning signals being used.
- Failure to satisfy requirement will also greatly complicate management of OP's, Check Points, convoys, and Perimeter Security Operations.

CDTS Short Title	
CDTS#	Date CDTS # assigned

Approval Authority – Regimental Level or as appropriate (General Officer level)

Command	Name of Approval Authority (Last, First, Initial)	Rank/Grade
Mailing Address	Phone	FAX
	E-mail	
	Date Received	Date Forwarded

Approval Authority Comments (optional)

Signature Block

Approval Authority – MEF Level or as appropriate (Division, Wing, Service Support Group, etc.)

Command II MEF FWD	Name of Approval Authority (Last, First, Initial) Johnson, Stephen T.	Rank/Grade
Mailing Address IIMEF FWD Commanding General PSC 20080 CAMP LEJEUNE, NC 28542-0080	Phone DSN 751-9845	FAX
	E-mail JohnsonST@iimef.usmc.mil	
	Date Received	Date Forwarded

Approval Authority Comments (optional)

Signature Block

Approval Authority — MARFOR Level or as appropriate*

Command	Name of Approval Authority (Last, First, Initial)	Rank/Grade
Mailing Address	Phone	FAX
	E-mail	
	Date Received	Date Fwd'd to Assessment Br, MCCDC

Approval Authority Comments (optional)

General Officer's Signature Block

1. Issues should be forwarded to CG MCCDC via respective chains of command

2. Issues require one General Officer's signature (at any level i.e. MARFOR, MEF, Div/Wing/FSSG, etc.) to be processed. MARFOR endorsement may be Chief of Staff (COS). Endorsement may be Executive Assistant (EA) for Division within HQMC. **An UNS will not be accepted by MCCDC without the proper endorsement.**

3. A disk copy should be forwarded through the chain of command along with the hard copy in case changes need to be made.

4. Additionally, please forward an electronic copy to the Capabilities and Assessments Branch (CAB), EFDC, MCCDC. CAB will store this copy as a "warning order" until they receive the hard copy (routed through your chain of command) with a General Officer's signature.

5. Upon receipt of the hard copy, the UNS will be entered it into the Combat Development Tracking System (CDTS) and staffed for appropriate review. CAB will also send an "e-mail acknowledgement" to the originator. This e-mail will include an assigned CDTS Title and Identity Number for tracking purposes on the CDTS web site. Information concerning the routing process of the UNS can be viewed on the first page of this form.

6. The link for the Combat Development Tracking System (CDTS) web site is https://www.cdts.marcorsyscom.usmc.mil.
Please ensure the letter "s" is included in the URL (https). For access to the web site, or if further information is required regarding this processing and status of your submission, please contact the Capabilities and Assessment Branch (CAB) CDTS representative.

7. Current personnel assigned to the CAB phone numbers, E-mail addresses may be found under http://www.mccdc.usmc.mil/ by clicking on the Capabilities Assessment Branch link.

-----Original Message-----
From: Daniel Col Edward D (CE G9 MarCorSysCom LNO)
From: Butter Col Jeffry S [mailto:ButterJS@marcent.usmc.mil]
Sent: Wednesday, August 03, 2005 8:57 PM
To: Gayl GS15 Franz J; Grasz CWO3 Jeffery D
Cc: Erisman Capt Ryan J; Grasz CWO3 Jeffery D; Atkinson Ctr John H; Wilson Col Gary I (CE G3 FP OIC); Daniel Col Edward D (CE G9 MarCorSysCom LNO); Harmon LtCol Jimmie P (CE G3 FP Spec Prg)

Subject: FW: [U] Laser Safety Review Board, case of LE Systems Inc

Mr. Gayl, CWO3 Grasz,

MARCENT (U.S. Marine Corps Forces Central Command), the Marine Component Commander for all Marine Corps Forces in the CENTCOM AOR, is keenly interested in equipping our Marines with equipment as rapidly as possible because they are facing extraordinary circumstances. Ordinary efforts on their behalf are not satisfactory.

Laser Dazzlers are a proven tool that will enable Marines to control traffic flow and prevent unnecessary DEATH - a safety review should be conducted with this in mind.

I am prepared to travel TODAY to talk to whoever needs to hear it - Marines in combat need this equipment - MARCENT expects the safety certification and subsequent fielding of these Dazzlers in terms of days or weeks, not months.

Capt Erisman, I would like to attend the demo in Camp LeJeune - can you help me arrange that?

Thanks!

Semper Fidelis,
Col Jeffry Butter
MARCENT G3 Aviation - AT/FP
DSN 318-651-7079/7080
butterjs@marcent.usmc.(smil).mil
Tandberg: 204.223.29.233

-----Original Message-----
From: Daniel Col Edward D (CE G9 MarCorSysCom LNO)
[SMTP:DanielED@cemnf-wiraq.usmc.mil]
To: Butter Col Jeffry S; Villanueva Capt Luis (CE G9 MarCorSysCom LNO);
Gayl GS15 Franz J
Cc: LESYSTEMS@aol.com; Wilson Col Gary I (CE G3 FP OIC)

Subject: [U] RE: Laser Dazzler Buy
Sent: 8/4/05 2:09 PM

Importance: High

Classification: UNCLASSIFIED

Jeff,

Only problem is I don't think our contracts guys will buy these unless they feel covered by a safely waiver.

This is really the rub...contracts guys won't pull the trigger...whether here or at HQMC or at MCSC. Similarly, nobody will answer the question 'are these safe.'

I here Franz saying the Commander just needs to make the call...understanding that nobody will say these are ok to use, and simply take the risk based upon how bad the alternatives are.

I'm ready to go to the CG and tell him if he wants them then we simply need to tell the contracts guys to buy them. (no different than your doing the same w/CG MARCENT or MFP).

Do we think that's the best we're going to be able to do ultimately?

Thanks.

sf, Ed

From: Grundy CIV Raymond A [mailto:raymond.grundy@usmc.mil]
Sent: Saturday, October 01, 2005 12:41 AM
To: Lasswell MR James A
Cc: Oltman Col Roger J; Fulks Brian T; Daniel Col Edward D (CE G9 MarCorSysCom LNO)
Subject: Laser Dazzler II MEF UUNS

Jim: Maj. Roper, NLW Team Ldr provided us with Laser Dazzler recommendations to meet the II MEF UUNS. I understand the legal review to be complete and we expect to have it next week. It is our intention to take the MCSC Dazzler recommendations to the DWG. As you are aware, an MROC decision will take time and then comes the question of funding. I have attached the spreadsheet

As I understand the CG's intent: get capabilities out to the Warfighter. Is there interest and ability by MCWL in purchasing a portion of the requirement and conducting a field/operational test and assessment. Half of the requirement: 200 units; approximately: $1,790,082.

Based upon our initial research and reports conducted AFRL/HEDO on the above mentioned lasers.

#1 GBD-III by BE Meyers

Based on the AFRL/HEDO review and the requirements, my hands down recommendation would be the B.E.Meyers GBD-III Custom Laser Dazzler. The GBD-III Custom system provides a Credible Glare (Flash Blindness effect) power density out to 108 meters, Nighttime credible glare power density out to 619 meters, with a eye safety range (Nominal Ocular Hazard Distance - NOHD) of 67.3 meters. At $8,950 it is the most expensive device tested, but it is the only device that is ruggedized for military use. The GBD-III Custom is a power-reduced version of the standard GBD-III Target Illuminator that is deployed with operational units and has been shock tested for rifle mounting. There is an existing, dedicated production line with an existing output of 100 a month that could be increased if needed. The GBD-III consists of all American parts and is powered by AA Alkaline Batteries.

<< File: Laser cost.xls >>

v/r

Mr. Ray Grundy

raymond.grundy@usmc.mil
703.784.6181
FAX 2532

<< File: Grundy CIV Raymond A.vcf >>

From: Land CIV Carlton E
Sent: Thursday, August 24, 2006 11:59
To: Jerothe GS15 Douglas J
Cc: Law CIV David B
Subject: RE: LE CHP info for JNLWD (Bodine)

Sir,

Some additional background material relating to the origin of the dazzler issue: The original UUNS and the initial hazard assessment of the four COTS systems deemed mature enough to support the UUNS are attached. Below is the recommendation provided to MCSC based on the stated operational requirements and the need to deploy 200-400 vice deploying a few for a field/end user assessment.

Major Roper,

Based on the AFRL/HEDO review and my understanding of the requirements, my hands down recommendation would be the B.E.Meyers GBD-III Custom Laser Dazzler. The GBD-III Custom system provides a Credible Glare (Flash Blindness effect) power density out to 108 meters, Nighttime credible glare power density out to 619 meters, with a eye safety range (Nominal Ocular Hazard Distance - NOHD) of 67.3 meters. At $8,950 it is the most expensive device tested, but it is the only device that is ruggedized for military use. The GBD-III Custom is a power-reduced version of the standard GBD-III Target Illuminator that is deployed with operational units and has been shock tested for rifle mounting. There is an existing, dedicated production line with an existing output of 100 a month that could be increased if needed. The GBD-III consists of all American parts and is powered by AA Alkaline Batteries.

The next best by a considerable margin would be the ATC CHPLD, manufactured by LE Systems. It would provide credible glare out to 186 meters in daytime, 339 meters nighttime, with a eye safety distance (NOHD) of 45 meters. At $6.6K this system would appear to yield valuable utility, however the system is powered by Lithium batteries and there were questions raised by the test facility regarding quality control in the production process. Some of the quality control issues can be illustrated by the variation on power output of the four laser elements that comprise the CHP system. Production rates and capability are also a factor.

The XADS PD/G-105 is underpowered and in adequate for the requirements as understood. The PD/G-200 might have utility in certain applications, however its NOHD is 106 meters and the original device to be tested did not survive shipping from the JNLWD office to AFRL/HEDO in Texas. There was significant shifting in the optics leading to Stray Laser Emissions. These systems are also based on a Japanese sourced laser element.

Please let me know if you have any questions or require additional information.

V/R

Carlton Land

Carlton E. Land, Jr.
Technology Assessment
Joint Non-Lethal Weapons Directorate (JNLWD)

3097 Range Road, Quantico VA 22134
Voice: DSN 378-0899 (Comm 703-432-0899)
Fax: DSN 278-3178 (Comm 703-784-3178)
carlton.e.land@usmc.mil
https://www.jnlwd.usmc.mil

Please let me know if you have any questions or require additional information.

V/R

Carlton

Exhibit # 6

Enter Web Address: http:// All Take Me Back Adv. Search Compare

Archive Pages

Searched for http://www.bemeyers.com/products.asp?itemid=58&catid=2&subcat=9 **4** Results

* denotes when site was updated.
Material typically becomes available here 6 months after collection. See FAQ.

Search Results for Jan 01, 1996 - Aug 27, 2007

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
0 pages	0 pages	0 pages	0 pages	0 pages	0 pages	0 pages	0 pages	0 pages	1 pages	2 pages	1 pages
									Jan 20, 2005 *	Mar 20, 2006 * Oct 19, 2006 *	May 28, 2007 *

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Exhibit # 6

Exhibit # 6

1-800-327-5648
BE MEYERS ACCO INC ELECTRO OPTICS

GBD-III
Item#: 532-A1

- NSN: 5855-01-526-4142
- World's most powerful handheld green laser
- Bright visible green pointer does not require night vision intensifiers to see the beam
- Used for CAS (Close Air Support) as a pointer/friendly location signal device
- 1/2 degree, 2 degree and larger beam diffusers for use as signal device or active denial tool for less than lethal operations
- Optional underwater filter provides long-range pointing and signaling in clear water conditions
- Available with positioning device for day/night use on crew-served weapons.

#532 GBD-III

HELP: "Click" photo for larger image.

GS-07F-9132D

Related Items

ADJUSTABLE WEAPON MOUNT
Item# 855-ELC556MT

More Detail >>

CANOPY BOOT
Item# 422-R21

More Detail >>

Exhibit # 6

-----Original Message-----
From: Carbonari CWO-4 Anthony J (CE MARCORSYSCOM LNO)
[mailto:carbonariaj@cemnf-wiraq.usmc.mil]
Sent: Wednesday, November 02, 2005 13:05
To: Kachelein LtCol Stephen P; Lowe Capt Troy T.; Dasch LtCol Robert D

Subject: [U] UUNS

Gentlemen,

The CG is back and Col Daniel will be briefing him tomorrow on UUNS status. There are a couple of questions I need to get answered for his brief. Requesting some help. I spent considerable time in CDTS getting familiar and am able to get data there, but, not all of the answers. I would greatly appreciate assistance with the following:

1. CHP LASER DAZZLERS CDTS 05209UB
CG II MEF stated preference for 400 GBD III Laser Dazzlers. Is legal review complete? Has MROC occurred yet?

2. EXPEDITIONARY FIREFIGHTING CAPABILITY CDTS 05209UB
MROC yet?

3. IR INITIATOR DETECTOR DISRUPTOR CDTS 05215UD
Testing being conducted by Joint IED Task Force. Can you please give me an est completion date? Trying to determine if this is something we will see prior to our changeover with I MEF.

Thanks for the assistance.

VRS,

CWO Carbonari

CWO-4 Anthony J. Carbonari
DSN: 318-3401-956
CarbonariAJ@cemnf-wiraq.usmc.mil <mailto:CarbonariAJ@cemnf-wiraq.usmc.mil>
CarbonariAJ@cemnf-wiraq.usmc.smil.mil <mailto:CarbonariAJ@cemnfwiraq.usmc.smil.mil>
TMO-ADDRESS:
FB4418-437 LRS/LGR DCO
113 S. Bates St (Bldg 178)
Charleston AFB, SC 29404-4718
Mark For: USMC TMO-EAST
OIF M/F MMX160
AL TAQQADUM AB, II MEF IIP
(Attn: CWO-2 Rangel, R. for Maj. Smith B.J. (DSN: 302-362-3467))
HABBANIYAH IQ
http://www.iimefpublic.usmc.mil/public/iimefpublic.nsf/DPSByID/18560E12E9FF67F488257063000A4A87/$file/EAGAug19pdf_Print.pdf
<blocked::http://www.iimefpublic.usmc.mil/public/iimefpublic.nsf/DPSByID/18560E12E9FF67F488257063000A4A87/$file/EAGAug19pdf_Print.pdf>

From: Watson CTR Floyd E
Sent: Friday, July 07, 2006 10:19
To: Stillabower GS14 Bradley R; Lasswell MR James A
Cc: Packard LT Deborah E; Grundy CIV Raymond A; Oltman Col Roger J
Subject: RE: [U] JNLWD SUPPORT

Jim & Blower,

Yes, the CHP Laser Dazzler will require legal and safety certification.

Following are key comments from CDIB and Ray Grundy's brief (Attached), both on 29 Jun 06.

- The CDIB decision on II MEF (FWD) JULY 2005 UUNS OIF-III - Laser Dazzlers - 05209UB: To field the II MEF (FWD) requested capability (BE Meyers GBL), because to rework the request to accommodate the I MEF (FWD) preferred system will take almost a year. It will also move the UUNS out of the urgent window and beyond the date of approved usage for at this type of laser. (Note: This decision was a unanimous - all CDIB reps agreed the key was to get the UUNS capability to the operating force.)

- Other facts, as Ray briefed: Dazzlers must conform to laws of war and pass scrutiny of Legal / Treaty & Laser Safety Review Board (LSRB). Also, MCSC determined that the I MEF (FWD) preferred system (CHP LD) cannot be produced by LE Systems. Also, the choice to procure the BE Meyers, GBD IIIC Laser Dazzler was made by MajGen Johnson due to its increased capability, availability (production line) and maintainability (it takes AA batteries). Pulling the plug on the BE Meyers and starting over puts funding at risk and could take an additional year to get to OIF. (By that time, II MEF (FWD) will again be the in command of MNF-W)

R/ Floyd

-----Original Message-----
From: Land CIV Carlton E
Sent: Thursday, August 24, 2006 11:05
To: Beata Maj Fred J; Boyle CIV Steven H ; Evans CTR Buck Q; Pramenko Maj William; Reid CIV Rega M; Scott CIV Richard I; Williams CTR Mary R; Wright CIV Bruce A
Cc: Gayl GS15 Franz J

Subject: FW: CHPLD Draft report

Team,

For your amusement and edification, the draft hazard assessment for the "production" run LE Systems CHP laser Dazzler is attached. It seems the NOHD is other than had been reported by the manufacturer.

enjoy,

Carlton

-----Original Message-----
From: Jerothe GS15 Douglas J
Sent: Thursday, August 24, 2006 10:33 PM
To: Land CIV Carlton E

Subject: RE: LE CHP info for JNLWD (Bodine)

Thanks Carlton….great additional gouge. I really appreciate the additional follow-up.

Doug

Exhibit # 11

LE Systems Inc

U S Manufactured Product (Including Laser Resonators)

L E SYSTEMS, INC. BACKS ITS PRODUCTS WITH THE EYES OF ITS OFFICERS.

On July 15, 2005 the officers and an associate of L E Systems, Inc. underwent eye examinations including documenting the results with retinal photographs.

No eye damage was found in any of the individuals.

The baseline examination, which also exhibiting no eye damage, was conducted on January 04, 2002.

Background: It was recognized by L E Systems, Inc. after initiating work on a DARPA contract in 1996, that a new energy density criteria would have to be established for human use of visible lasers as vision impairment devices.

While this need has recently been reiterated as if it were a new revelation, the need was also apparent years ago by an individual in the U S Military, knowledgeable in this field. He had encouraged us to move forward on our own, realizing the bureaucracy would move too slowly.

After thousands of exposures to the Standard Laser Dazzler over the years, including at aperture, and more recently hundreds to the Compact High Power Laser Dazzler at distances of 25 meters and beyond and the eye examination results, it is obvious that we have successfully established an energy density that will not harm the eyes with proper use of our products. Anyone purchasing our product would be given the opportunity to use our retinal photographs in court if necessary.

In addition, the fact that L E Systems was able to create the Compact High Power Laser Dazzler with exceptionally high peak power for use at long range in sunlight and still be utilized at 25 meters (a distance much closer than that

Exhibit # 11

specified by the customer) without causing irreversible eye damage is another demonstration of abilities that were realized through years of experience in the area of developing the Laser Dazzlers™.

L E Systems products, including the laser resonators, are U S MANUFACTURED, therefore simplifying the process of assuring product quality.

L E Systems' products, components and suppliers are not listed on, or part of FDA Warning IA95-04, **http://web.archive.org/web/20060622001511/http://www.fda.gov/ora/fiars/ora_import_ia9504.html**.

LE Systems, Inc. (LESI) was established in 1993 to bring technology to Law Enforcement. Since inception LESI has developed the Laser Dazzler™, trained and certified police and security personnel and conducted R&D on various laser projects for the United States Military.

Exhibit # 11

Subj: **RE: Text-Eye Safety ANSI STD Z136.1**
Date: 8/29/05 4:07:42 PM Eastern Daylight Time
From: carlton.e.land@usmc.mil
To: LESYSTEMS@aol.com

Titus,
Thanks. It was a pleasure to speak with you this afternoon.
r,
Carlton

Carlton E. Land, Jr.
Technology Assessment
Joint Non-Lethal Weapons Directorate (JNLWD)
3097 Range Road, Quantico VA 22134
Voice: DSN 378-0899 (Comm 703-432-0899)
Fax: DSN 278-3178 (Comm 703-784-3178)
carlton.e.land@usmc.mil
https://www.jnlwd.usmc.mil

-----Original Message-----
From: LESYSTEMS@aol.com [mailto:LESYSTEMS@aol.com]
Sent: Monday, August 29, 2005 16:03
To: Land CIV Carlton E
Subject: Fwd: Text-Eye Safety ANSI STD Z136.1

Carlton,

This is an overview I did for Derek Dereiter at Picatinny, which he was going to get to LTCOL Ray Smith.

There is an additional advantage in that there are four separate resonators that (which are on a 22.3mm circle) that produce the total power. One, redundancy and two, since the beams do not combine until some distance from the aperture the stand off distance is less than it would be if one resonator/one beam produced the same total average power and there is a lower chance of eye damage in the event of accidental exposure at close range.

Will just forward my e-mail of this morning to your USMC e-mail, didn't notice it this morning.

Thank you.

Best regards,

Titus A. Casazza

LE Systems Inc.
91 Prestige Park Circle
Suite 5
East Hartford, CT 06108
1-860-291-9630 - Phone
1-860-291-9475 - Fax
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Forwarded Message:

Subj: **Text-Eye Safety ANSI STD Z136.1**
Date: 8/25/05 1:22:53 PM Eastern Daylight Time
From: LESYSTEMS
To: derek.dereiter@us.army.mil

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Derek,

For a 0.25 sec blink response the ANSI STD allows 2.55mw/cm2 to be called eye safe for a CW laser. This energy density and lower values are sufficient for vision impairment. The problem is to have a practical HAND HELD or GUN MOUNTED device (in other words a reasonable size aperture) that creates sufficient energy density at a practical distance and spot size to be used

as a visual impairment device cannot meet the 2.55mw/cm2 at aperture. The energy density AT APERTURE for these devices to be practical is somewhere between 26mw/cm2, that which will cause irreversible eye damage, and the 2.55mw/cm2.

A number of years ago we were advised buy an individual in the Military well versed in non-lethal devices, to develop our own criteria for hand held devices. We did, and the proof in is our retinal photographs. The number we use is proprietary to L E Systems, Inc. I will pass it on to you, but I will need a statement from you it will not be divulged publicly or to any competing entity. In other words stay within the U S Military and also not given to competing U S Military entities. We have invested considerable time and funds in the determination of the criteria and would economically harmed if this information was divulged to our competition.

Example: The Standard Laser Dazzler is limited to 200mw total. This device works well indoors, out side in low light and at night. With a 75mm aperture and a maximum 200mw (150mw the minimum to be an effective vision impairment device) this device cannot meet the 2.55mw/cm2 to be called eye safe per the ANSI specification. Some are using the data from the USAF May 2001 Report done on our first laser and the SEA Red. AFRL-HE-TR-2001-0095. Our opinion, not really appropriate. The Standard Laser Dazzler is eye safe at aperture based on our years of us to the guide lines we have established.

The CHPLD: Must be near 500mw average power to be effective in bright sunlight, anything less is a waste of time.

25 meter stand off distance: Average power 475mw, 16 Hz 60% on time (duty cycle)
That translates to 37.5ms on time in each cycle. Peak power 791mw.

Calculation for 25 meter Stand off distance: Assumptions/adjustments 1) 50% duty cycle,
2) Total energy is put into spot size that is 0.708 full diameter spot. 3)The peak energy of all four Gaussian beams for each of the four laser resonators will be coincidental on the subjects eye.

The calculated energy density at 25 meters is 11mw/cm2, this was determined by taking the total energy in 2) for all four resonators and doubling it twice. In other word assuming the measured energy is produced by 50% on time not 60% and the peak energy at the center of the Gaussian beam is 2X the average and the assumption 3) is true.

Actual energy densities measured with 60% on time at 25 meters is 1.132 and 1.04 mw/cm2. This translates to 1.886 mw/cm2 equivalent if CW a using the higher measured number, and 3.772 mw/cm2 peak energy.

Translation: Calculation of peal energy density from actual measured energy density is 34.3% of the calculated energy density being used for determination of eye safe stand off distance. I have had the CHPLD used on myself at ranges of 16-17 meters prior to the eye examination of 15 July 2005.

Hope this helps.

VR

Ti Casazza

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-----Original Message-----
From: Lapierre Col Martin E (CE G9 AC/S)
Sent: Monday, December 04, 2006 17:17
To: Gayl GS-15 Franz J (I MEF FWD Science Advisor)
Subject: FW: [U] CHP GBD III Side by Side

Classification: UNCLASSIFIED

Kirk,

I will apologize if I was incorrect but please take a minute and see if what I am saying has any validity.

Here is what we think we know:

1. MCCDC in the person of Mr. Ray Grundy told us that JNLWD was responsible for submitting laser devices to the LSRB, he also told us that Mr. Land was the individual at the JNLWD who worked this issue. Grundy went further and told us that Mr. Land was the individual who submitted the GDB III LaserDazzler to the LSRB with the specific intent of using it to provide a material solution to the II-MEF Laser Dazzler UUNS.

2. I was also told by a Brian Fulks that all the paper work had been submitted to the JNLWD for the CHP laser Dazzler to be submitted to the LSRB.

3. Mr. Land indicated to Franz that the CHP Laser Dazzler was already in front of the LSRB not more than two months ago, giving the impression that LtGen Amos' desire to get the device in front of the LSRB was being fulfilled.

4. To our knowledge JNLWD routinely requests evals and tests on systems, and has done so with CHP at Air Force bio-effects and even CHP testing at Dahlgren. The JNLWD would therefore have the authority to request evealuations such as bringing the CHP before the LSRB. Franz even asked JNLWD to do this in an e-mail the day after LtGen Amos' way ahead e-mail on CHP. JNLWD may be titled Joint but is wholly integrated with SYSCOM through its USMC PE, and this would not present a problem, and such requests are not exclusive to MMCDC or SYSCOM.

5. Carlton Land had no issue with dispatching his dazzler team to I MEF Fwd in order to advocate the GBD III in Jul - Aug, but interestingly they did not bring a CHP, the device of interest to I MEF Fwd, and called out by name in the II MEF UUNS.

6. The GBD III appears to have been expedited through the LSRB noncompetitively at the expense of the CHP by Ray Grundy, Carleton Land and Maj Roper (SYSCOM) causing a perspective by some of non-competitive practices. Originally this best of breed subjective process was executed in haste was justified as needed to accelerate the UUNS. It was apparently a completely subjective process based on criteria of Grundy and Land. In the end we get anything but an expedited process, with a need signed on 9 June 05 and nothing delivered to date to either MEF, and a process that might not withstand deeper scrutiny.

7. The CHP was sent to Dahlgren apparently by Carlton Land to receive a technical evaluation NSWC DD, when their laser folks had a dog in the fight, namely their own competitive laser configuration, possibly one connected to

the GBD III makers. Carlton said there are firewalls in place, but testing, would reflected badly on the CHP would not have stood up to IOT&E independence standards by any measure.

8. You speak of all the things that Carlton is getting us. What are their specifically? Everybody is busting their butts, so in light of all the confusing information above, there must be something very special that Carlton is doing.

Kirk we are skeptical. There have been dynamics at work at JNLWD on dazzlers that well precede your arrival that both Franz and I are well aware of, in Franz's case for years. Your defense of your team is commendable - we would do the same - I think we three are cut from that same cloth. But your scientist Carlton has raised our doubts no less than Ray Grundy. He can point to SYSCOM (Roper), he can point to MCCDC (Grundy), but in the end it is his charge at the JNLWD to mature dazzlers (policy, effects, legal, etc.) for the Services. Getting the CHP before the LSRB is included in that charge if MCCDC or SYSCOM are not doing so. As you may recall, General Amos specifically Cced General Huly on that 17 Sep e-mail. His way-ahead was certainly no surprise to JNLWD, even though you had still not arrived in the seat.

Both Franz and I will be glad to apologize if all of the above is disproved, but first please give us feedback on the above.

Back to the operational topic, the attached document is often sighted as the reason that the CHP Laser Dazzler is not field to us. It is a JNLWD document and lends credibility to Grundy’s story.

Please keep in mind that EOF situations are a huge problem out here and the command wants to bring down the number of incidents in the worst way. Laser Dazzlers have become the prime example of how we are not support out here by those charged to do so

Kirk, you were cced on the original email chain. I have attached it below. We were not trying to jump the chain, we assumed that you were not interested in this situation or were not yet spun up enough to pick up on what is going on with the dazzlers.

If any of the above offends you Let me applogize in advance. I don't want to pick a fight. We just want the CHP laser Dazler because of it's superior operational capablities and how it would change this disaterous EOF situation.

Marty

Col Marty LaPierre
AC/S G9 I-MEF (FWD)
Technology and Innovation
Martin.LaPierre@cemnf-wiraq.usmc.mil
DSN 318-3405-900

CDTS Title	
CDTS#	Date CDTS # assigned

URGENT UNIVERSAL NEED STATEMENT (UUNS)

PURPOSE

ISO Marine Forces participating in Combat and Contingency Operations, the Deputy Commandant for Combat Development and Integration (DC, CD&I) accelerated the Expeditionary Force Development System (EFDS) by expediting the processing of Universal Need Statements (UNS). The accelerated UNS are known as Urgent UNS (UUNS). The nature of the UUNS process is to provide rapid acquisition of a capability in order to meet an urgent requirement. To date, the UUNS process has been employed directly in support of deploying USMC units for OEF, OIF, and HOA.

All Urgent Universal Need Statements are entered into a web-based format for tracking purposes. The link for the Combat Development Tracking System (CDTS) web site is https://www.cdts.marcorsyscom.usmc.mil. Please ensure the letter "s" is included in the URL (https). For access to the web site, or if further information is required regarding this processing and status of your submission, please contact the JCIDS Capabilities Harmonization Branch (JCHB), CDTS representative.

Personnel assigned to JCHB, phone numbers, and e-mail addresses can be found under http://www.hqmc.usmc.mil/ by clicking on the JCHB link. Information about the EFDS may be found by clicking on the EFDS link.

CDTS Title	
CDTS#	Date CDTS # assigned

URGENT UNIVERSAL NEED STATEMENT (UUNS)

Name (Last, First, Initial) Gayl, Franz J.		Rank/Grade GS-15	Phone 318-3405-902			Date submitted: 20 Dec 2006	
Available for phone or personal follow-up?	X	Interested in participation on Solution Course of Action IPT?	X	Request UNS status updates by e-mail?	X	E-mail franz.gayl@cemnf-wiraq.usmc.mil	RUC

THIS IS AN URGENT UNS ISO OPIF 05-07

Type of Capability Needed

Describe the nature and the cause (if known). Explain how the need was identified (e.g. operational deployment, training exercise, experimentation, formal study, mission area analysis, observed operating deficiencies, vendor demonstration, etc.) and explain the planned implementation of the proposed solution.

(FOUO). I MEF (Forward) has an urgent need for a Compact High Power Laser Dissuasion (CHPLD) capability. The CHPLD needs to be capable of visually signaling, and then visually dissuading foot and vehicle borne individuals from continuing motion toward denied areas through temporary and reversible impairment to unaided vision. With this non-lethal mechanism in mind, the CHPLD needs to provide Marines manning Entry Control Points (ECPs), engaged in tactical movement, and providing perimeter security a standoff dissuasion capability at target ranges of as little as 70 meters to beyond 300 meters. The CHPLD laser dazzlers will allow for increased standoff application of less than lethal force while delivering an unambiguous warning to help prevent the unnecessary escalation of force (EOF). This will safeguard the lives of innocent civilians who get too close to Marine positions and exclusion zones, while interrogating the intent of more determined adversaries to justify kinetic actions taken against them.

(FOUO) The submission of this UUNS has three purposes. 1) The first purpose is to revalidate the original II MEF (Fwd) OIF 04-06 UUNS for a Laser Dazzler capability dated 9 June 2005, since the urgent I MEF need for the laser dazzlers requested in the II MEF UUNS remains both current and chronic. 2) The second purpose of this UUNS is to define I MEF-specific needed capabilities as the result of operational experience in the I MEF Fwd/Multi National Force – West (MNF-W) Area of Operations (AOR). This will include defining the threshold requirements for the integration of CHPLD capabilities with a) individual Marines and their T/O weapons, b) anti-sniper tactical vehicles, and c) combat unmanned aerial vehicles (UAVs). Specifically, this CHPLD integration spans from hand-held operation, to T/O weapon mounting, to the Mobile Advanced Shooter Detection and Neutralization System (MASDANS) UUNS signed 13 December 2006, and the Small Unmanned Combat Arial Vehicle (SUCAV) UUNS signed 23 November 2006. 3) The third purpose of this UUNS is to recommend a future expansion of the laser dazzler-enable dissuasion requirement with a view to employing more operationally realistic safety criteria and more demanding physical construction standards based on actual military requirements and emerging threats.

(FOUO) 1. II MEF Laser Dazzler Need Revalidation: The original II MEF Laser Dazzler UUNS dated 9 June 2005 defined a need for a non-lethal, non-damaging method of gaining the attention of Iraqis in

order to warn them that they are entering a Lethal Force Authorized Zone. The II MEF conducted independent market research, and specifically identified the Compact High Power Laser Dazzler (CHPLD) and the Standard Dazzler (SD), both manufactured by LE Systems Inc., as the sole source solutions for the urgent need. II MEF requested 200 of each type dazzler. The CHPLD in particular, was and remains today; the hand-held green laser with the highest average output power and capable of projecting the largest effective laser spot size on target of any U.S. manufactured green laser dazzler. The CHPLD therefore was and remains appropriate for sole source procurement. I MEF Fwd hereby revalidates the original II MEF Laser Dazzler UUNS, as it pertains to the LE Systems CHPLD being identified as a material solution.

(FOUO) 2. I MEF CHPLD Capability Definition. In addition to revalidating the basic II MEF Fwd need for a laser dazzler capability, I MEF Fwd has a more detailed definition of the dazzler need for the purpose of expanding the use of the CHPLD capability to multiple platforms. This further definition includes hand-held, personal-T/O weapon-mounted, MASDANS anti-sniper vehicle-mounted, and SUCAV combat UAV-mounted Compact High Power Laser Dissuasion (CHPLD) capability applications. Each is addressed individually in the following paragraphs.

(FOUO) a. The threshold I MEF Fwd needs for hand-held and personal weapon-mounted CHPLD laser dazzler capability are defined below:

- At a minimum, the CHPLD needs to be a 500mW average power, one (1) Watt peak power green laser dazzler device in order to exploit maximum eye sensitivity.
- The CHPLD needs to employ a planar array of four (4) parallel green laser diode source apertures for redundancy, while minimizing the energy emission from any single point source.
- The total green laser dazzler power of the CHPLD solution needs to possess sufficient average power to produce credible glare throughout a one-meter diameter circular spot, continuously during engagement.
- The CHPLD needs to be capable of being operated continuously for 90 minutes on one battery charge.
- Specifically, the CHPLD needs to project green laser dazzler energy sufficient to cause credible glare at midday against 95% of human targets engaged, including engagement of the pupil around the entire perimeter at the very edge (outermost centimeter) of the one meter diameter circular spot.
- The CHPLD needs to be a high power green laser dazzler that is suited to employment as a hand-held device while still being modularly adaptable to a variety of tactical platforms.
- The CHPLD needs to be equipped with a hinged aperture cover that the operator can manually employ when the device is at the ready but not being fired, in order to protect the optics and serve as an additional safety step in a deliberate firing sequence.
- The CHPLD needs to be equipped with a chassis that is integrated with a pistol grip as a hand-held mounting option.

- The CHPLD needs to have redundant firing mechanisms at the base of the laser device as well as aboard the pistol grip in the form of an on-off circuit closure switch as well as a momentary-on, push-button trigger switch.
- The CHPLD needs to be equipped with a red dot aiming retical as an optional attachment for the hand-held chassis.
- The CHPLD needs to be capable of being mounted aboard personal and crew served weapons that are equipped with the Picatinni Rail.
- The CHPLD needs to have a capability to remote a trigger to a different location aboard various T/O weapons and platforms using a plug-in cable trigger extension.
- The CHPLD needs to capable of being integrated with the Long Range Acoustic Device (LRAD) for combined arms employment from a ground mount or from a tactical vehicle.
- The CHPLD needs to be approved by the Department of the Navy (DoN) Laser Safety Review Board (LSRB).

(FOUO) b. The threshold I MEF Fwd needs for the Mobile Advanced Shooter Detection and Neutralization System (MASDANS) CHPLD capability are defined below:

- The CHPLD solution needs to be fully interoperable with the kinetic counter-sniper/counter-SAF capability of the Mobile Acoustic Shooter Detection and Neutralization System (MASDANS).
- At a minimum, the MASDANS-integrated CHPLD needs to constitute a 500mW average power, one (1) Watt peak power green laser dazzler device that is integrated with the Common Remotely Operated Weapons Station (CROWS).
- When mounted aboard the MASDANS, CHPLD needs to have an option to integrate the dazzler with the IR laser range finder of the MASDANS weapons station, for auto-adjust of dazzler focus to achieve one-meter dazzler spot diameter and threshold fluence as defined above at the IR laser-ranged target.
- The high power green laser dazzler of the CHPLD solution needs to be capable of producing a circular spot one meter in diameter at a range of 70 meters, and possess a continuously variable focus to allow the operator to produce a one meter diameter spot at 300 meters.
- When mounted aboard the MASDANS, in the case that automated systems are disabled the CHPLD needs to be capable of being removed from or operated by the gunner aboard the now manually manipulated crew served weapons mount.
- When mounted aboard the MASDANS the CHPLD needs to permit the rapid removal and evacuation of critical components under operational conditions in case that the CHPLD vehicle platform is disabled or destroyed.
- The MASDANS-integrated CHPLD needs to be approved by the Department of the Navy (DoN) Laser Safety Review Board (LSRB).

(FOUO) c. The threshold I MEF Fwd needs for the Small Combat Unmanned Arial Vehicle (SUCAV) CHPLD capability are defined below:

- The CHPLD solution needs to be fully interoperable with the Small Combat Unmanned Arial Vehicle (SUCAV).
- At a minimum, the SUCAV-integrated CHPLD needs to constitute two (2) green illuminator-dazzlers having an output of two (2) Watts average power and four (4) Watts peak power each, that are mounted in tandem and facing forward parallel to the longitudinal axis of the SUCAV aircraft.
- The two SUCAV-mounted CHPLD green laser dazzler devices each need to be capable of producing credible glare throughout a two-meter diameter circular spot during engagement.
- Specifically, the two SUCAV-mounted CHPLD green laser dazzler devices each need to be capable of causing credible glare at midday against 95% of human targets engaged, including engagement of the pupil around the entire perimeter at the very edge (outermost centimeter) of the two meter diameter circular spot.
- The SUCAV-integrated CHPLD needs to be approved by the Department of the Navy (DoN) Laser Safety Review Board (LSRB).

(FOUO) 3. Objective CHPLD Capabilities Definition. The objective CPHLD capability will require Department of the Navy (DoN) Laser Safety Review Board (LSRB) consideration and approval as it seeks a modification of currently established green laser fluence constraints. , as well as incorporate certain physical design advances to adapt to emergent threats, in accordance with the following:

- As an objective, the CHPLD needs to adopt the 26mW/cm^2 power density, i.e. the threshold for permanent retinal damage caused by green lasers, as the upper power density/fluence limit for operational employment.
- As an objective, the CHPLD needs to dismiss the 2.6mW/cm^2 power density limit of the American National Standards Institute (ANSI) Inc. "American National Standard for the Safe Use of Lasers" (ANSI Z136.1-2000) as a green dazzler operational employment constraint.
- As an objective, with the exception of adopting 26mW/cm^2 as the upper fluence limit, the CHPLD needs to remain in full compliance with all other aspects of the Department of the Navy (DoN) laser safety standard, namely OPNAV 5100.27A and its counterpart MCO 5104.1B.
- The objective eye safety criteria for the CHPLD needs to be approved by the Department of the Navy (DoN) Laser Safety Review Board (LSRB):

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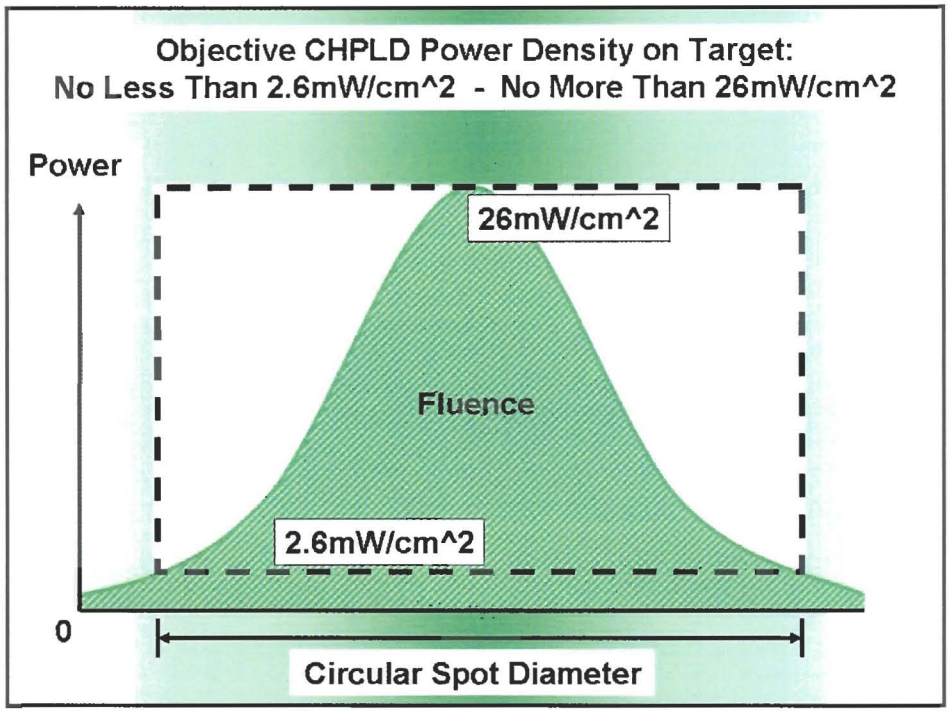

Figure 1. Objective CHPLD power density trade-space.

- As an objective, and to the maximum extent feasible, the CHPLD needs to employ electronic components that are protected against the effects of emergent Electromagnetic Pulse (EMP) weapons threats.

- As an objective, and to the maximum extent feasible, CHPLD needs to employ electronic components that are protected against the effects of emergent High Power Microwave (HPM) weapons threats.

- As an objective, the planar array aperture of the CHPLD capability needs to minimize point source emissions without sacrificing total power emission from the compact aperture; i.e. incorporate an increased number of smaller diodes and/or employ fiber green laser sources.

- As an objective, the CHPLD capability needs to incorporate operator-adjustable flicker and pulse repetition rates.

- As an objective, the CHPLD capability needs to incorporate multiple discrete color options for complex mixing, or outright wavelength agility for chirping and other counter-measure-defeating techniques that increase optical dissuasion effectiveness in operations.

Requested Quantity (if a materiel solution)

Identify the total quantities required, broken down by unit or activity. Include the vendor name/model of any identified material solutions.

(FOUO) The I MEF Fwd need for CHPLD mirrors the II MEF need expressed in the II MEF UUNS dated 9 June 2006. This I MEF need calls for 400 Compact High Power Laser Dissuasion (CHPLD)

capabilities as a total material solution. Similarly, the II MEF need called for 400 laser dazzlers divided into two Commercial Off The Shelf (COTS) product classes, namely 200 Standard Dazzlers and 200 Compact High Power Laser Dazzler (also known as the CHPLD), both of LE Systems Inc. Unlike the II MEF UUNS, the I MEF Fwd needs all 400 capabilities to be delivered in the form of the CHPLD. This is due to the unique combination of LE Systems CHPLD properties, namely high power, distributed planar array aperture, large spot size on target, demonstrated COTS maturity, and producability. The tentative plan is for the 400 I MEF Fwd CHPLD capabilities to be distributed between ten (10) Battalions and two Combat Engineer Companies, as further defined under "Distribution" below.

Concept of Employment

Describe your proposed method(s) of employment and how implementation of this UUNS will improve your combat effectiveness.

(FOUO) 1. General CHPLD Employment Considerations.

(FOUO) Figure 2 below depicts the basic determiners of laser dazzler beam geometry. Essentially, as a laser beam with a so-called Gaussian spatial energy distribution profile, propagates through the air the beam diameter changes as a function of range from the aperture exit port of the CHPLD. At this exit port the beam possesses an initial diameter. From that zero range the beam then diverges at an angle that is directly related to both the initial diameter and the wavelength of the light being emitted. If the initial diameter at the aperture is larger the divergence angle will be smaller. Conversely, if the light has a longer wavelength the divergence angle will be greater. For the shorter wavelength of the CHPLD's green laser there are beneficial options for preserving a tightly collimated beam from the small aperture to achieve longer range. With this collimation as a start point, artificial modification of the beam with a diffuser or a physical diode/fiber bundle expansion mechanism can both be employed to achieve a consistent spot diameter at closer range.

(FOUO) Laser light poses greater hazards to eyes due to the properties of phase coherence and parallel path collimation. When light from a conventional, incoherent light source enters the eye, even after focusing, it forms an extended image across the retina allowing significant power to be dissipated. However, when the coherent and collimated laser energy of a laser enters the eye it is focused onto a small spot on the retina having higher energy density, even from a lower powered light source. This is the strength of the dazzler, i.e. the capability to project non-lethal dissuasive effects from a compact light source from great standoff. It is also the weakness of the laser, as the concentrated parallel propagation of in-phase light energy of a single wavelength risks injury at closer range and ultimately limits the utility of any high power, single point source-based laser dazzler to longer range.

(FOUO) An aperture that combines many parallel point sources can preserve the properties of laser beam collimation for the combined beam while reducing the risk of eye damage at closer range due to the lateral distribution of the point sources. Individual beams thereby propagate independently and out of phase, and consequently having their own divergence characteristics. At the target the beams are superpositioned in space so as to again achieve a spot energy distribution that is Gaussian. But when passed through the pupil and focused onto the retina these superpositioned, out-of-phase beams will have some of the injury-mitigating properties of incoherent light. This includes extended image projection eliminating some of the risk of concentrating injurious, in-phase energy on a single point. Figure 3 depicts the superpositioning of an aperture array formed by multiple smaller, out-of-phase apertures:

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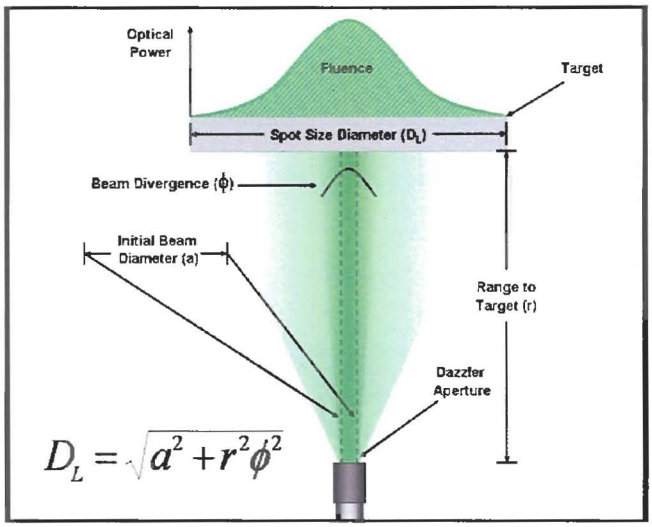


Figure 2. CHPLD laser beam geometry.

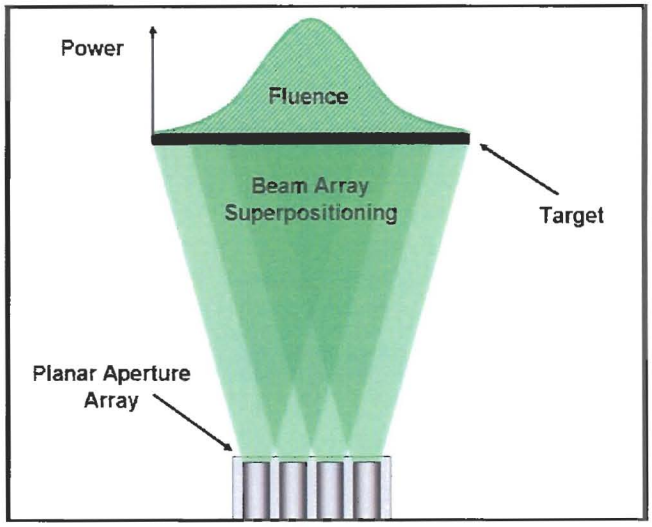


Figure 3. Beam superpositioning on target.

(FOUO) Multiple, parallel point sources add both redundancy and safety by minimizing the Nominal Ocular Hazard Distance (NOHD) and damage threshold distances for any given combination of total laser power and CHPLD aperture diameter. Currently, for the purpose of operationalizing such planar arrays of smaller sources, conventional, direct radiating diodes are the most mature technology, and lend themselves to compact packaging and efficient cooling. A four-diode planar aperture array is therefore the threshold for the CHPLD configuration today. As visible fiber optic laser technology matures in the future, bundles of such fibers, perhaps of various color wavelengths, will lend themselves to flexible design and employment options, constituting true distributed planar arrays. Figures 4 and 5 below depict the threshold and objective versions of such planar aperture arrays:

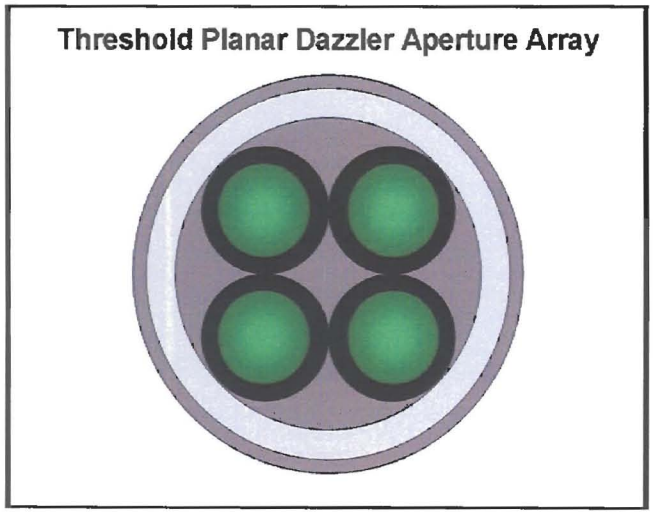


Figure 4. Threshold four-diode planar aperture.

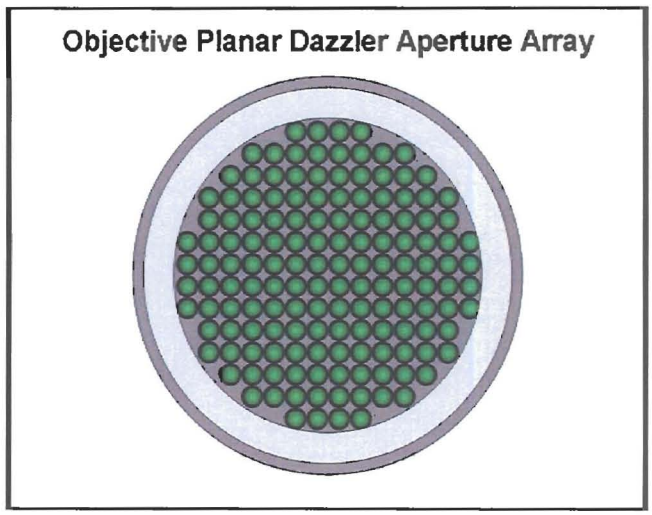


Figure 5. Objective multi-diode or fiber aperture.

(FOUO) In the case of the CHPLD a tightly collimated beam on target is not desirable across the relatively short required engagement ranges of from 70 to just beyond 300 meters. First, a tightly collimated beam implies a smaller diameter circular spot on target. From an unstablized platform such

as a hand-held CHPLD or a weapon-mounted CHPLD in an off-hand position a smaller spot has a lesser probability of intersecting the pupil of the suspected adversary, and this intersection is prerequisite for dissuasion. Therefore, from an effectiveness perspective, under operational conditions the larger spot size on target is crucial in order to achieve dissuasion. Furthermore, at closer ranges a small spot has higher power density and if it cannot be continuously expanded as the target nears, at close range hazard considerations will prevent continued engagement. For this reason, a variable diffuser-focus capability will permit a constant spot diameter and a constant fluence distribution to be maintained as the range-distance parameters change. This can be done manually in the case of hand-held and T/O weapon-integrated CHPLDs. When mounted aboard the MASDANS or other vehicle platforms, the CHPLD needs to be integrated with an IR laser range finder for automatic adjustment of dazzler spot size on target. Spot size modification can be achieved using diffusers or other optics-varying devices run by electric motors, piezo expanders, and other methods of eliminating diode/fiber parallelism. By these means the threshold fluence needed for credible glare at night and during the day will be achieved safely and automatically at ranged targets:

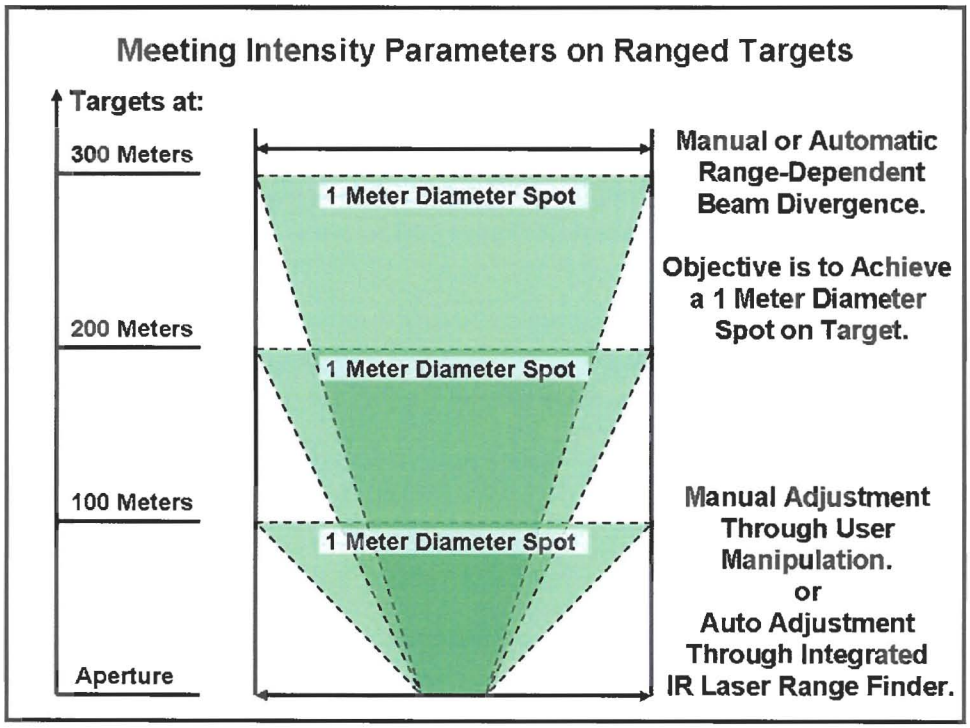


Figure 6. Continuous CHPLD spot diameter adjustment for maintenance of constant fluence.

(FOUO) 2. CHPLD Hand-Held and Weapon-Mounted Employment:

(FOUO) In its conventional mode of operation, The CHPLD will be employed by dismounted Marines at Entry Control Points (ECPs), Check Points (CPs), or similar somewhat fixed site Anti Terrorist/Force Protection (AT/FP) mission within the I MEF Fwd AOR. When operating as a Team, marines can specialize with one armed with the pistol-grip equipped device and the other his or her T/O weapon. In other instances the option exists to affix the CHPLD to the Picatinni Rail of the weapon with a remoted CHPLD trigger on the butt stock or the pistol grip of the rifle. The CHPLD will assist MNF-W operators by providing them a precision standoff tool capable of optically dissuading vehicles that are

approaching ECPs, CPs, or exclusion zones. It will do so in a way that mitigates the otherwise compressed action-reaction cycles that allow little pause for defensive posture adjustment.

(FOUO) Armed with the long range optical dissuasion capability MNF-W AT/FP operators so-assigned will be capable of signaling, dissuasion, and discriminating the intent of unknown subjects that are not responding to visible or audible signs and signals. The CHPLD will thereby serve as a tool for the positive identification (PID) of an individual's intent with sufficient standoff to prevent an unnecessarily hasty and perhaps unfortunate escalation to deadly kinetic force. This standoff will in essence permit a gradual and deliberate transition through a seamless spectrum of non-lethal options virtually instantaneously, before exercising lethal force. The CHPLD and its future more powerful variations will temporarily and reversibly shut down and adversary's vision making further forward progress, whether in a vehicle or on foot, impossible at any meaningful pace. It will negate the ability of that individual to target the CHPLD-armed Marine with a direct fire weapon, if that were a potential threat.

Figure 7. Threshold hand-held CHPLD capabilities.

(FOUO) 3. CHPLD-MASDANS Employment:

(FOUO) The MASDANS constitutes a Mine Resistant Ambush Protected (MRAP) vehicle equipped with an advanced set of sensor, non-lethal, lethal, and machine cognition-based pattern recognition capabilities. MASDANS, as an anti-sniper capability, was inspired by the increasing frequency of sniper incidents in the I MEF Fwd AOR, and in particular sniping incidents that are designed to draw Marines into IEDs and Small Arms Fire (SAF) ambushes. A key component of the MASDANS is the CHPLD. The green dazzler is fully integrated into the MASDANS concept of employment in that it can offensively seek out and dissuade would-be snipers and observers in coordination with the optics-detecting Near Infra-Red Optical Augmentation (NIRO) device. As a defensive capability, after incoming small arms fire has been detected by MASDANS the kinetic weapon suite of the CROWS mount and its sensors will automatically slew to the azimuth and elevation from with the small arms fire

originated. While the advanced MASDANS will maintain a Marine operator in the loop for actual kinetic return fire, the CHPLD is not so-restricted. Once the shot origin has been targeted, the CHPLD, again in coordination with NIRO optics detection, can immediately and automatically begin dissuading subsequent shots while the MASDANS and crew close with the sniper.

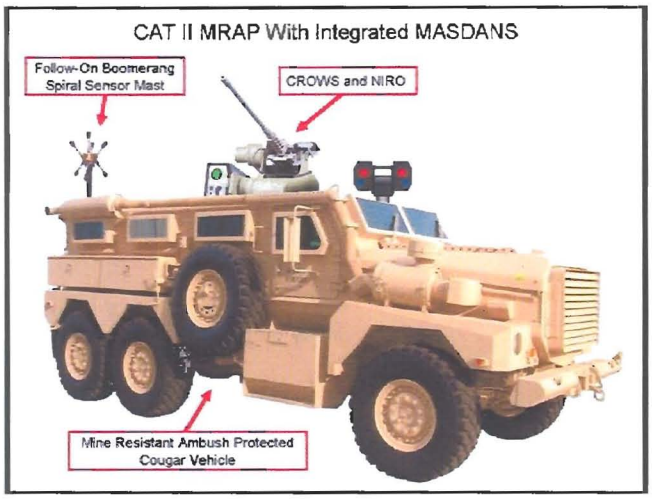


Figure 8. CROWS-armed MASDANS capability.

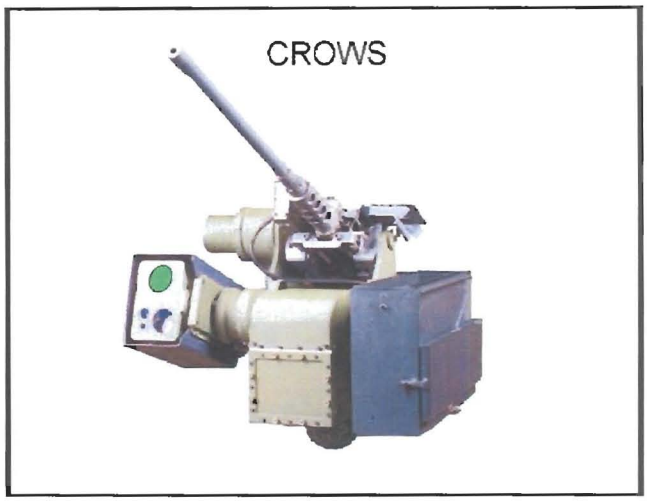


Figure 9. CHPLD integrated with the CROWS.

(FOUO) 4. CHPLD-SUCAV Employment:

(FOUO) The SUCAV is an armed Tier II UAV platform that, once employed in larger numbers in the MNF-W AOR, promises to help set many aspects of the Al Anbar insurgency back on the defensive. The SUCAV is armed with lethal 40mm weapons, acoustics communications, a multi-band ISR suite, a CHPLD capability, and other accessories. It is envisioned as a force multiplier that will be crucial to sustained, offensive COIN operations. The SUCAV will be capable of suppressing and spoiling enemy IED, SAF ambush, and Indirect Fire (IDF) attack preparations deep in areas where the enemy had previously perceived himself to be comfortably within protected sanctuary. On-board sensors will allow the ground operators to make positive identifications as well as make determinations of hostile intent that warrant lethal force prior to engagement, while preserving a complete video record.

(FOUO) Aboard the SUCAV, tandem CHPLDs will be mounted facing forward along each side of the longitudinal axis of the aircraft. Each CHPLD will have a power output of approximately two (2) Watts average power and four (4) Watts peak power in order to allow for an even greater diameter dissuasive spot size at longer range. The CHPLDs can be employed for various purposes including but not limited to visible target illumination at night, and day time target dazzle to frustrate small arms engagement of the SUCAV during ingress and attack. In the day multi-watt high power dazzlers will avert the eyes of the SUCAV's immediate prey to prevent effective, defensive small arms fire at close range. At night the dazzlers can support tactical movement by illuminating suspected threats for subsequent ground or close air support engagement, not to mention their own engagements.

CDTS Title	
CDTS#	Date CDTS # assigned

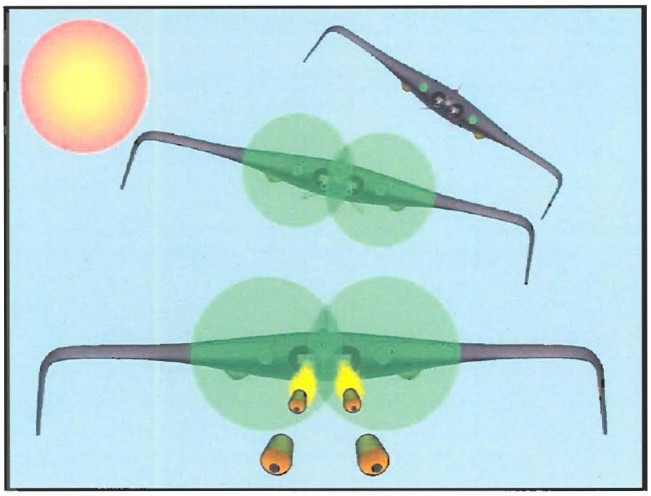


Figure 10. SUCAV engaging from out of the sun.

Figure 11. Nighttime SUCAV spoiling attack.

Training Requirements

Describe any additional, special, required, or proposed training that your Marines will need to ensure they are capable if implementing your proposed materiel solution as intended.

(FOUO) Training will be required for the CHPLD. Currently, MARCORSYSCOM is developing such a training program for laser dazzlers. It needs to include a Mobile Training Team (MTT) for Marines already deployed into theater as well as training during Mojave Viper for those Marines that have not yet deployed, that will fall in on CHPLD capabilities upon arrival.

Supportability Requirements

Describe any additional, special, required, or proposed support personnel (contractor/Marine) and/or equipment your will need to maintain the capability requested over the next 12 to 18 months. Include consumables (i.e. batteries, lubricants, fuel, etc.) to include any special considerations like hazardous materials and protective equipment.

(FOUO) Supportability requirements for the CHPLD capability need to be no more demanding than the supportability requirements of other tactical lasers in the armories or field environments associated with other tactical laser systems, such a range finders and illuminators. The only exception in the regard is that compact high power dazzlers may require high energy density batteries that are not within the Marine Corps Supply System (MCSS), and that may be considered Hazardous Materials (HAZMAT). Such specialized batteries are acceptable and needed considering the operational advantages provided by the ability to conduct extended high power dazzler-supported operations without the need to recharge or replace batteries.

CDTS Title	
CDTS#	Date CDTS # assigned

Does unit possess the T/O to operate the UUNS equipment or does the UUNS equipment require a T/O increase?

(FOUO) Units currently possess the necessary T/O to implement this UUNS. No T/O increase is required.

Anticipated Unit Distribution (deployed UICS) and Fielding Plan

Describe your plan for distributing the equipment and manpower that will utilize the equipment in the field.

(FOUO) The tentative I MEF Fwd plan is to distribute a CHPLD capability to ten (10) Battalions, with the provision of 38 individual systems per Battalion for a total of 380 CHPLDs. The remaining 20 CHPLDs are would be divided between two (2) Combat Engineer Companies. The type units to which the CHPLD capabilities are tentatively planned to be distributed to are as follows:

Unit Description	Quantity
6 Infantry Battalions:	228
1 Light Armor Reconnaissance:	38
1 Reconnaissance Battalion:	38
2 Artillery Battalions:	76
2 Combat Engineer Companies:	20
Total	**400**

Impact (unclassified) to Mission Accomplishment

Describe the negative effects on the accomplishment of your mission if this UUNS is not fulfilled.

(FOUO) The CHPLD will assist MNF-W operators by providing them a precision standoff tool capable of optically dissuading vehicles that are approaching ECPs, CPs, or exclusion zones. It will do so in a way that mitigates the otherwise compressed action-reaction cycles that allow little pause for defensive posture adjustment. At the same time the modern Information Operations (IO) campaign will demand ever more extraordinary efforts to deliver graduated response and achieve precise target discrimination before employing kinetic force. In this regard, if the CHPLD capability defined above is fulfilled, MNF-W will be provided an invaluable signaling, dissuasion, and discrimination tool that is and has been urgently needed to enable the discriminate and justifiable application of lethal force. Furthermore, MNF-W forces will now be able to transition through a seamless spectrum of non-lethal options virtually instantaneously, before exercising lethal force. This significant capability will reinforce the MNF-W IO and PA campaigns by publicly demonstrating the self-imposed strides of U.S. forces to reduce the violence in the MNF-W AOR. Also, by providing I MEF Fwd a longer range dissuasion tool, the CHPLD will directly lower the danger posed to our Marines during such ECP and CP confrontations.

CDTS Title	
CDTS#	Date CDTS # assigned

MEF POC for Information Coordination

Who are your technical and tactical experts and advisors who may assist in the refining/defining of solution to this UUNS?

Col Marletto, Michael P., USMC
AC/S G-3, I MEF (FWD)
NIPR: michael.marletto@cemnf-wiraq.usmc.mil
SIPR: michael.marletto@cemnf-wiraq.usmc.smil.mil
DSN: 318.3405.300

Col LaPierre, Martin E., USMC
AC/S G-9, I MEF (FWD)
NIPR: martin.lapierre@cemnf-wiraq.usmc.mil
SIPR: martin.lapierre@cemnf-wiraq.usmc.smil.mil
DSN: 318.3405.900

Mr. Gayl, Franz J., USMC
Science Advisor, I MEF (FWD)
NIPR: franz.gayl@cemnf-wiraq.usmc.mil
SIPR: gayl.franz@cemnf-wiraq.usmc.smil.mil
DSN: 318.3405.912

Estimated Cost (if known)

Provide your estimated cost for the operation and support of the equipment in 6 month increments out to 18 months from the date of fielding.

(U) The cost of the CHPLD capability spirals is unknown at this time.

Program of Record Recommendation

Should this capability be continued and turned in to a Program of Record, after the urgent need is satisfied?

(FOUO) Yes. The CHPLD capability needs to evolve to a program of record so that precision optical dissuasion becomes a standard non-lethal option for all Marines in an operational posture.

T/O&E or Doctrinal Change Recommendation

Describe any proposed or required changes to T/O&E/s, doctrine, or TTP's.

(U) No. Since the CHPLD capability is a compact, optional non-lethal weapon acessory, changes to T/O or doctrine are not required. The CHPLD capability hardware will however need to be added to the T/E of all receiving units.

If the need is not satisfied, how will it affect your ability to perform the mission or task?

(FOUO) MNF-W operators will continue to face compressed action-reaction cycles at longer range that allow little pause for adjustment. At the same time the modern Information Operations campaign will demand ever more extraordinary efforts to deliver graduated response and precise target discrimination. In this regard, if the CHPLD capability defined above is not fulfilled, MNF-W will continue to lack the signaling, dissuasion, and discrimination tools needed to enable the discriminate and justifiable application of lethal force. Likewise, MNF-W forces will not be able to transition through a seamless

CDTS Title	
CDTS#	Date CDTS # assigned

spectrum of non-lethal options virtually instantaneously, before exercising lethal force. This chronic deficiency will continue to harm the MNF-W IO and PA campaigns by denying forces practical non-kinetic force protection options, and also endanger our Marines.

Approval Authority – Regimental Level or as appropriate (Battalion, Squadron, etc.)

Command I MEF FWD	Name of Approval Authority (Last, First, Initial) LaPierre, Martin E	Rank/Grade Col/06
Mailing Address I MEF FWD G-9 UIC 42510 FPO AP 96426-2510	Phone DSN 318-3405-900	FAX N/A
	E-mail MARTINE.LAPIERRE@CEMNF-WIRAQ.USMC.MIL	
	Date Received	Date Forwarded

Approval Authority Comments (optional)

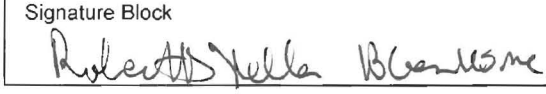
Signature Block

Approval Authority – MEF Level or as appropriate (Division, Wing, Service Support Group, etc.)

Command I Marine Expeditionary Force FWD	Name of Approval Authority (Last, First, Initial) NELLER, ROBERT	Rank/Grade BGEN/07
Mailing Address DEPUTY CG, OPERATIONS I MEF FWD UIC 42510 FPO AP 96426-2510	Phone DSN 318-3404-105	FAX N/A
	E-mail ROBERT.NELLER@CEMNF-WIRAQ.USMC.MIL	
	Date Received DEC 29 2006	Date Forwarded DEC 29 2006

Approval Authority Comments (optional)

Signature Block



Approval Authority – COMMARFOR Level or as appropriate (COMMARFORPAC, COMMARFORCOM, etc.)

Command	Name of Approval Authority (Last, First, Initial)	Rank/Grade
Mailing Address	Phone	FAX
	E-mail	
	Date Received	Date Forwarded

Approval Authority Comments (optional)

General Officer's Signature Block

CDTS Title	
CDTS#	Date CDTS # assigned

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Approval Authority – MARINE COMPONENT COMMANDER (COMMARCENT, etc.)

Command	Name of Approval Authority (Last, First, Initial)	Rank/Grade
Mailing Address	Phone	FAX
	E-mail	
	Date Received	Date Forwarded
Approval Authority Comments (optional)		
	General Officer's Signature Block	

1. Urgent UNS will be forwarded to CG, MCCDC via respective chains of command.

2. Urgent UNS require routing and validation via the respective chain of command (e.g. Unit to MEF to MarFor to MARCENT) to be processed. An UUNS will not be accepted by MCCDC without the proper routing and validation.

3. An electronic copy (both a .pdf and an MS Word version) should be forwarded through the chain of command along with the hard copy in case changes need to be made.

4. Additionally, forward an electronic copy to the JCHB, CDD, MCCDC. The JCHB will store this copy as a "warning order" until they receive the hard copy (routed through your chain of command) with Commanding General validation signatures.

5. Upon receipt of the hard copy and chain of command validation endorsements, the UUNS will be entered into the Combat Development Tracking System (CDTS), staffed for appropriate review, and an "e-mail acknowledgement" will be sent to the originator. This e-mail will include an assigned CDTS Title and Identity Number for tracking purposes on the CDTS web site.

6. The link for the Combat Development Tracking System (CDTS) web site is https://www.cdts.marcorsyscom.usmc.mil.
Please ensure the letter "s" is included in the URL (https). For access to the web site, or if further information is required regarding this processing and status of your submission, please contact the CDTS representative.

7. Current personnel assigned to the JCHB, phone numbers, and e-mail addresses may be found under http://www.mccdc.usmc.mil/ by clicking on the JCHB link.

Exhibit # 14

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-----Original Mes <<Grundy CIV Raymond A.vcf>> sage-----
From: Grundy CIV Raymond A
Exhibit # 15
Sent: Friday, February 16, 2007 12:56
To: Oltman Col Roger J
Cc: Blasiol GS15 Len A; Johnson LtCol Michael W MCCDC; McConnell GS14 Kevin M
Subject: Recommendations from the 15 Feb LSRB on the CHPLD

Gentlemen: The NL Branch, FPID received a back brief this morning from MCSC,
PG-13 on the LSRB review of the CHPLD. It was the unanimous recommendation of the LSRB board members not to approve the CHPLD for use. It has multiple problems.

The particulars for the LSRB decision will be forthcoming in the next few weeks. In the meantime, MCSC is compiling an AA report with detailed information.

R/s
Mr. Ray Grundy
raymond.grundy@usmc.mil
703.784.6181
FAX 2532

Exhibit # 15

From: Stillabower GS14 Bradley R
Sent: Friday, February 16, 2007 14:42
To: Clubb Col Timothy L
Cc: Dunay Capt Gregory E; Patton-Hall ND4 Katherine E

Subject: LE CHPLD LSRB Certification results

Sir,

Update on LE CHP certification testing: not approved by LSRB.

-----Original Message-----
From: Clubb Col Timothy L
To: Alles BGen Randolph D
CC: Tomczak Col Jeffrey P
Sent: Fri Feb 16 14:46:03 2007
Subject: FW: LE CHPLD LSRB Certification results

Sir
Hot off the press: UNANIMOUS recommendation by LSRB members NOT to approve CHPLD for use. LSRB met yesterday on it.

V/R

tim

-----Original Message-----
From: Alles BGen Randolph D
Sent: Friday, February 16, 2007 14:59
To: Amos LTGEN James F; Mattis LtGen James; Johnson MajGen Stephen T; Conant BGen Thomas L; Brogan BGen Michael M; Dillon SES Barry L
Cc: Tomczak Col Jeffrey P; Clubb Col Timothy L
Subject: Fw: LE CHPLD LSRB Certification results

Gentlemen,
  FYI. The LSRB (laser safety review board) has met and rejected the LE Systems CHP laser dazzler for certification. I'll get more details to see what fixes are required.

V/R
BGen "Tex" Alles, MCWL, (703) 784-5096

-----Original Message-----
From: Amos LTGEN James F
To: Alles BGen Randolph D
CC: Mattis LtGen James; Conant BGen Thomas L; Johnson MajGen Stephen T; Stalder LtGen Keith J
Sent: Fri Feb 16 15:25:35 2007
Subject: RE: LE CHPLD LSRB Certification results

OK...I think that we need to press them hard on this one Tex...I want you personally involved and I want them to personally instruct you on WHY this was not certified. Then come back to me.

Semper fidelis

Jim

-----Original Message-----
From: Tomczak Col Jeffrey P
Sent: Friday, February 16, 2007 15:57
To: Grundy CIV Raymond A; Allen CIV Scott A
Subject: RE: LE CHPLD LSRB Certification results

Ray and Scott,

Need to talk to both of you soonest.

Thanks,
jpt

Col Jeff Tomczak
Chief of Staff
Marine Corps Warfighting Lab
NIPR: jeffrey.tomczak@usmc.mil
COM: (703) 784.5096/8/9
DSN: 278.5096/8/9
FAX: (703) 784.2122
SIPR: tomczakjp@mcwl.usmc.smil.mil
STE: 703.432.1097
http://www.mcwl.quantico.usmc.mil

-----Original Message-----
From: Allen CIV Scott A
Sent: Friday, February 16, 2007 16:36
To: Huelse LtCol Scott A
Cc: Roper Maj Gregory T; Ferris CIV Timothy B; Forrester CIV Robert A; Karcher COL David P; Dillon SES Barry L; Brogan BGen Michael M
Subject: FW: LE CHPLD LSRB Certification results
Importance: High

Scott, You can see the attention this is getting. MCWL is meeting with BGen Alles at 1200 on Tue (2/20) can we provide an information paper or something with some initial insight to support this event?

Semper Fidelis,
Scott

-----Original Message-----
From: Forrester CIV Robert A
Sent: Friday, February 16, 2007 18:03
To: Brogan BGen Michael M; Karcher COL David P; Dillon SES Barry L
Cc: Allen CIV Scott A ; Huelse LtCol Scott A; Miller CIV Eric W; Curley CIV Jonathan D
Subject: RE: LE CHPLD LSRB Certification results

Gentlemen,

Here are the facts with the attached information paper and laser hazard evaluation brief to provide amplification:

The LSRB met yesterday. Information presented was the laser hazard evaluation from NSWCDD Code G73, a Concept of Employment brief (updated COE received from MCCDC today), and a training plan brief. Reception from the LSRB members was less than enthusiastic:

1) Already fulfilled the requirement of the UUNS with the GBD III, why are you coming back to us? Where's the requirement? Although we stated at the beginning of the session our purpose was to seek LSRB approval for a system procured by the operating forces with their O&M funds and being held from use until LSRB approved.

2) Why aren't Marines wearing laser eye protection when using green beam lasers? (may become a larger issue than just dazzlers)

3) If the LSRB approved the CHP they would retract their approval of the GBD III. The approval for the GBD III expires in March 2008. The LSRB is pushing for engineering vice procedural controls; something we don't have for either of these systems.

4) Technical barriers to LSRB approval are few:
- Get rid of the click on rear cap and replace with arming lanyard cap (already provided)
- Needs military exemption (manufacturer claims he's already requested from the FDA)
- Warning label needs to reflect correct NOHD (77 meters on the unit tested). This distance varies because of the power output variations between individual laser modules.
- Needs to establish nomenclature and model numbers to differentiate between the varying configurations of his products
- A member of the LSRB recommended that consideration be given to establishing NOHDs and ODs based on a 10 second exposure (vice a 1/4 sec) given the intended use of the system which is targeting human eyes. This in effect would push the NOHD out close to the credible glare limits of the system and impact its intended employment.

Initial consensus of all the LSRB members was unfavorable. We think the formal letter, which documents the LSRB's recommendation will cite both the technical shortcomings of the system and the requirement for additional laser dazzlers beyond the 400 GBD III systems on contract. As discussed earlier, the technical fixes are easily addressed. I think the LSRB is out of its box questioning the requirement for additional systems, and it should relegate itself to considering solely the laser system and those parts of the testing related to the laser system as noted in MCO 5104.1B.

PG 13 attendees at the LSRB were requested not to broadcast the board's recommendation until formal release of the LSRB chairman's letter. We met to discuss the results this morning and asked the MCCDC attendee to wait for our information paper to be staffed here before this information got out.

v/r

Bob Forrester

-----Original Message-----
From: Brogan BGen Michael M
To: Alles BGen Randolph D
Sent: Sat Feb 17 15:56:17 2007
Subject: FW: LE CHPLD LSRB Certification results

Tex: FYSA; We may need to go to General Quarters, but we should probably wait for the final report. SF, Mike

-----Original Message-----
From: Amos LTGEN James F
Sent: Sunday, February 18, 2007 11:44
To: Alles BGen Randolph D; Brogan BGen Michael M
Cc: Clubb Col Timothy L; Tomczak Col Jeffrey P; Mattis LtGen James; Gaskin MGen Walter E; Stalder LtGen Keith J
Subject: RE: LE CHPLD LSRB Certification results

Tex and Mike...as indicated below I need a coordinated reengagemennt on this immediately. We'll do it unemomtionally and professionally...but I don't need the LSRB questioning the rqmt coming from the warfighter...that's not their purview. We have Iraqis and Marines being put in situations that deal in life-or-death every day of the week...many of which could be mitigated by use of a quality dazzler. If the CHP dazzler works better than the LE one then that's the one that we want and we all need to pull together as a team to make certification, training and employment happen! Consider a letter from me to the board as an option to reopen the door if necessary...but this is hot as far as I'm concerned and I need a full court press applied. I am willing to make the trip to Dalhgren (??) if necessary to speak face to face. As you both know, this already has press and congressional interest (rightfully so) and the board may find itself professionally embarrassed and trying to publically defend it's position.

All of this is based on a belief that the CHP Dazzler is good and safe. If it's not then I don't want to employ it...if it is then get this off of top dead center and lets get it moving. Come back to me with an update this week.

Semper fidelis

Jim

-----Original Message-----
From: Mattis LtGen James
Sent: Sunday, February 18, 2007 15:07
To: Amos LTGEN James F; Alles BGen Randolph D; Brogan BGen Michael M
Cc: Clubb Col Timothy L; Tomczak Col Jeffrey P; Gaskin MGen Walter E; Stalder LtGen Keith J
Subject: RE: LE CHPLD LSRB Certification results

Tamer: Only the fact that you, Tex and Mike Brogan are engaged in this fight on our behalf keeps me from climbing on an airplane and hunting down these rear-echelon fucks who would question the requirement out of theater. I could not agree more with your e-mail below. Don't hesitate to call on MARCENT should you need more info, etc.

The last thing we need are some smug, safe, stay-at-home shits questioning the need to avert tragic EOF engagements because they've chosen to dismiss the requests from our lads in the fight. If there are bonafide technical shortcomings, so be it -- we'll address or resolve those problems or forego the CHP. But the claptrap reported in part below in Mr. Forrester's e-mail is not compelling since the technical decision appears to be personalized and bordering on irresponsible.

We have Marines in difficult positions and need to work together to help them resolve EOF without killing folks due to a less than capable laser that they wish to replace with a more capable version.

Thank you, and Mike and Tex as well, for your usual efforts on our behalf. Please let me know if you need reinforcing fires from MARCENT. MARCENT will continue to control and sequester all CHPs until I hear it is certified (at which time we will issue them) or that it has bonafide technical problems precluding its certification (in which case MARCENT will ship them back to LOGCOM for destruction). s/f Jim

Earmarks

	A	B	C	D	E	F	G	H	I	J	K
1	**Earmarks in House Version of Defense Authorization Bill**										
2	**Budget account**	**Description**	**Authorization Amount (x$1,000)**	**Intended Recipent or Location**	**Requesting Member**	**Party**	**State**	**Dist.**	**Disclosed**	**Notes**	**Found in report text**
3	RDTE	Advanced Detection of Explosives (ADE) Program	3,000	Alaka'l Consulting and Engineering Inc.- Largo, FL	Abercrombie	D	HI	1	yes		
4	RDTE	Agile Coalition Environment (ACE)	4,000	Referentia Systems, Inc.- Honolulu, HI	Abercrombie	D	HI	1	yes		
5	RDTE	Air Sentinel	7,250	Naval Air Systems Command	Abercrombie	D	HI	1	yes		
6	RDTE	Communications Support Environment	3,000	Air Force Combat Support Office	Abercrombie	D	HI	1	yes		
7	Procurement	Hawaii Air National Guard Eagle Vision Program One-Meter SAR	3,500	Air Force Combat Support Office- Washington, DC	Abercrombie	D	HI	1	yes		
8	RDTE	Hawaii Undersea Chemical Weapons Assess	4,000	University of Hawaii - Honolulu, HI	Abercrombie	D	HI	1	yes	One of two signees on a $8 million earmark	
9	RDTE	High Accuracy Network Determination System	10,000	Air Force Research Laboratory and Oceanit - Honolulu, HI	Abercrombie	D	HI	1	yes		
10	RDTE	Individual Fatigue and Oper Relevant	2,000	Archinopetics, LLC - Honolulu, HI	Abercrombie	D	HI	1	yes	One of two signees on a $4 million earmark	
11	RDTE	Internet Protocol Version 6 Transition Planning Laboratory	1,000	SPAWAR	Abercrombie	D	HI	1	yes		
12	RDTE	Marine Mammal Awareness, Alert and Response Systems (MMAARS)	4,000	NAVAIR	Abercrombie	D	HI	1	yes		
13	RDTE	Marine Mammals-Effects of Sound	2,240	Marine Mammal Research Program - University of Hawaii	Abercrombie	D	HI	1	yes		
14	RDTE	Optical Recognition Protocol for Biological Detection	1,500	Pukoa Scientific - Oahu, HI	Abercrombie	D	HI	1	yes		
15	RDTE	Personal Intelligence Medical Assistant (PIMA)	2,500	Army Medical Treatment Facilities	Abercrombie	D	HI	1	yes		
16	Procurement	Rescue Streamer Distress Signal Kit	2,500	Aircrew Life Support- National Guard Bureau, Rescue Technologies Corporation- Aiea, HI	Abercrombie	D	HI	1	yes		
17	RDTE	Syn Fuels	1,500	Ship Systems and Engineering, ONR - Arlington, VA	Abercrombie	D	HI	1	yes		
18	RDTE	Tactical Compact Optical Interrogator	7,800	Naval Research Laboratory - Washington, DC	Abercrombie	D	HI	1	yes		
19	MilCon	Tactical Vehicle Wash Facility	9,200	Kahuku Training Area, HI	Abercrombie	D	HI	1	yes		
20	Procurement	Advanced Wireless Technologies	500	InterDigital Communications Corporation- King of Prussia, PA	Ackerman	D	NY	5	yes		
21	Procurement	AN/SPQ-9B Radar for DDG 51 Modem Prog	2,666	NGC Electronic Systems Norden-Melville Office- Melville, NY	Ackerman	D	NY	5	yes	One of three signees on a $8 million earmark	
22	RDTE	Advanced Mission Planning Tools for SOF	2,500	Westar Aerospace and Defense Group, Inc.- St. Charles, MO	Akin	R	MO	2	yes	One of two signees on a $5 million earmark	
23	Procurement	C-17 Globemaster III	345,700	Boeing-Long Beach, CA	Akin	R	MO	2	yes	One of seven signees on $2.4 billion earmark for 10 new C-17s	
24	Procurement	Depot AIT (D-AIT) at ANAD and RRAD	1,500	Intermec Technologies Corporation PMJAIT-Fort Belvoir, VA	Akin	R	MO	2	yes	One of four signees on a $6 million earmark	
25	RDTE	Hyperspectral Sensors for Improved Force Protection	7,000	Clean Earth Technologies - Earth City, MO	Akin	R	MO	2	yes		
26	RDTE	Joint Stand Off Missile	1,500	LaBarge Inc. - Joplin, MO	Akin	R	MO	2	yes	One of two signees on a $3 million earmark	
27	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	Akin	R	MO	2	yes	One of 12 signees on a $14 million earmark	
28	RDTE	Chemical/Radiological Directors using Nanotechnology	3,000	Louisiana Tech University, Ruston, LA	Alexander	R	LA	5	yes		

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29	RDTE	Dual Use Sensors and Robotics	3,000	Louisianne Tech University - Ruston, LA	Alexander	R	LA	5	yes		no
30	Procurement	F-16 Block 42 Engine Upgrades- ANG	3,675	Pratt and Whitney- East Hartford, CT	Allen	D	ME	1	yes	One of eight signees to a $29.4 million earmark for an alternative engine program for the F-16	
31	Procurement	MK47 Mod 0 Striker SDCOM Grenade Launcher	8,000	General Dynamics Armament and Technical Products- Saco, ME	Allen	D	ME	1	yes		
32	RDTE	Small Craft Integrated Common Operational Picture (SCICOP)	1,600	Technology Systems, Inc. - Brunswick, ME	Allen	D	ME	1	yes		
33	RDTE	Joint and Interoperable Electronic Health Record Technology	2,400	Heritage Valley Health System - Beaver, PA	Altmire	D	PA	1	yes		
34	RDTE	Aegis (BMD) Signal Processor (BSP)	11,000	Lockheed Martin- Moorestown, NJ	Andrews	D	NJ	1	yes	One of two signees to a $22 million earmark for the Missile Defense element.	
35	RDTE	Applied Comm and Infor. Network (ACIN)	3,500	U.S. Army CERDEC	Andrews	D	NJ	1	yes	One of two signees to a $7 million earmark.	
36	O&M	Cold War Medal	2,000	Veterans of the Cold War	Andrews	D	NJ	4	yes		
37	RDTE	Computer Assisted Threat Evaluation (CATE) Exploitation System	5,000	OSD (Advanced Systems and Concepts)	Andrews	D	NJ	1	yes		
38	RDTE	Distributed Mission Interoperability Toolkit (DMIT)	3,500	Electronic Systems Center - Hanscom AFB	Andrews	D	NJ	1	yes	One of three signees on a $7 million earmark	
39	RDTE	Manufacturing of Precision Aspheric Optics	3,000	Edmund Optics Pennsburg - Pennsburg, PA	Andrews	D	NJ	1	yes	One of three signees on a $6 million earmark	
40	RDTE	Network Enabled Combat Identification (CID)	1,667	BAE SYSTEMS - Wayne, NJ	Andrews	D	NJ	1	yes	One of three signees on a $5 million earmark	
41	Procurement	P-3C High Resolution Digital Recorder	1,000	AIP Mission Systems- Patuxent River, MD	Andrews	D	NJ	1	yes	One of three signees on a $3 million earmark	
42	RDTE	Portable Flexible Communication Display Devices	1,000	Universal Display Corporation - Ewing, NJ	Andrews	D	NJ	1	yes	One of five signees on a $5 million earmark	no
43	RDTE	Portable Mobile Emergency Broadband Systems	1,500	CECOM RCED - Fort Monmouth, NJ	Andrews	D	NJ	1	yes	One of two signees on a $3 million earmark	
44	RDTE	Reusable Training OPS System for Satellite Training	1,000	Princeton Satellite Systems - Princeton, NJ	Andrews	D	NJ	1	yes		
45	RDTE	Tactical Metal Fabrication System (TacFab)	790	Sea Box, Inc. - East Riverton, NJ	Andrews	D	NJ	1	yes	One of eight signees on a $6.3 million earmark	
46	RDTE	Vectored Thrust Ducted Propeller (VTDP)	3,167	Plasecki Aircraft Corporation - Essington, PA	Andrews	D	NJ	1	yes	One of three signees on a $9.5 million earmark	
47	RDTE	Cyber Attack Mitigation and Exploitation Laboratory II (CAMEL)	2,900	AFRL/FGB - Rome, NY	Arcuri	D	NY	24	yes		
48	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	Arcuri	D	NY	24	yes	One of 12 signees on a $14 million earmark	
49	RDTE	MK 48 ADCAP Torpedo Post Launch Communication System	2,000	Cortland Cable Company - Cortland, NY	Arcuri	D	NY	24	yes		
50	MilCon	Northeast Air Defense Sector Support Facility	6,600	NEADS HQ- Rome, NY	Arcuri	D	NY	1	yes		
51	RDTE	DDG 1000 Permanent Magnet Motor System	4,500	DRS Power Technology, Inc. - Fitchburg, MA	Bartlett	R	MD	6	yes	One of three signees on a $9 million earmark	
52	RDTE	DDG-51 Class Perm Magnet Drive Sys	4,000	DRS Power Technology, Inc. - Fitchburg, MA	Bartlett	R	MD	6	yes	One of two signees on a $8 million earmark	
53	RDTE	GeoSAR Enhancements	4,000	EarthData International, Inc. - Frederick, MD	Bartlett	R	MD	6	yes		
54	RDTE	Heavy Duty Hybrid Electric Vehicle	5,000	Volvo Powertrain of North America - Hagerstown, MD	Bartlett	R	MD	6	yes		
55	RDTE	Integrated Environment Control System (ECS) Cryogenic Agent Removak System	5,000	Fairchild Controls - Frederick, MD	Bartlett	R	MD	6	yes		
56	RDTE	JEM Range Extension	850	Thales Communications Inc. - Clarksburg, MD	Bartlett	R	MD	6	yes	One of two signees on a $3.7 million earmark	
57	Procurement	Laser Markmanship Training System (LMTS) for the Navy Reserve Support PB	8,000	MPRI- Columbia, MD	Bartlett	R	MD	6	yes		
58	RDTE	Lightweight Small Arms Technologies (LSAT)	5,000	AAI Coporation - Hunt Valley, MD	Bartlett	R	MD	6	yes		
59	RDTE	Mobile Detection Assessment Response System (MDARS) Modernization	5,500	Fairchild Controls - Frederick, MD	Bartlett	R	MD	6	yes		
60	RDTE	Portable Flexible Communication Display Devices	1,000	Universal Display Corporation - Ewing, NJ	Bartlett	R	MD	6	yes	One of five signees on a $5 million earmark	no
61	RDTE	Pulsed Energy Projectile	7,000	Alliant Techsystems Inc. - Rocket Center, WV	Bartlett	R	MD	6	yes		

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62	MilCon	Research Support Center	2,500	Fort Detrick, MD	Bartlett	D	MD	24	yes		
63	RDTE	Integration of Javelin onto CROWS	5,400	Recon Optical, Inc. - Barrington, IL	Bean	R	IL	6	yes		
64	RDTE	Automated RF Survey, Collection, Processing, and Analysis	2,950	Innovative Signals Tech LLC, Scottsboro AL	Berry	D	AR	1	yes		
65	MilCon	Multi-purpose Education Facility	4,900	Little Rock AFB- Little Rock, AR	Berry	D	AR	8	yes	One of two signees on a $9.8 million earmark	
66	RDTE	Advanced Packaging and Direction Finding	2,300	The Windermere Group, Annapolis, MD	Bilirakis	R	FL	9	yes		
67	RDTE	SOCOM Power Sources Integration Team	2,700	The Windermere Group - Annapolis, MD	Bilirakis	R	FL	9	yes		
68	Procurement	Virginia Class Submarine (VCS) Advance Procurement	84,000	Electric Boat, Groton, CT; Newport News Shipyard, Newport News, VA	Bilirakis	D	FL	1	yes	One of seven signees on a $588 million earmark for an additional Virginia Class submarine	
69	Procurement	C-17 Globemaster III	345,700	Boeing-Long Beach, CA	Bishop, Rob	R	UT	1	yes	One of seven signees on $2.4 billion earmark for 10 new C-17s	
70	RDTE	Demil Resource Recovery and Recycle Topala Army Depot	3,400	Topala Army Depot, UT	Bishop, Rob	R	UT	1	yes		
71	MilCon	Family House Replacement, Phase I	5,000	US Army Dugway Proving Grounds, UT	Bishop, Rob	R	UT	9	yes		no
72	RDTE	Fiber Optic Acoustic Systems	2,000	Northrop Grunman - Salt Lake City, Utah	Bishop, Rob	R	UT	1	yes	One of two signees on a $4 million earmark	
73	Procurement	ICMB Remote Visual Assessment	7,000	Hill AFB, UT; F.E. Warren- WY; Minot AFT- ND; Malstrom AFB- MT	Bishop, Rob	R	UT	1	yes		
74	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	Bishop, Rob	R	UT	1	yes	One of 12 signees on a $14 million earmark	
75	RDTE	Versatile Affordable Advanced Turbine Engine (VAATE) for Supersonic Cruise Missiles	10,000	AFRL - Wright-Patterson AFB, OH, Williams International LLC - Walled Lake, MI	Bishop, Rob	R	UT	1	yes		
76	Procurement	AN/SPQ-9B Radar for DDG 51 Modem Prog	2,666	NGC Electronic Systems Norden-Melville Office- Melville, NY	Bishop, Timothy	R	NY	1	yes	One of three signees on a $8 million earmark	
77	Procurement	JP-5 Manifold (globe) (EVOs)	2,300	Curtiss Wright Corporation- E. Farmingdale, NY	Bishop, Timothy	D	NY	1	yes	One of three signees on a $6.9 million earmark	
78	O&M	ARNG Battery Modernization Program	1,000	US Army National Guard, TN	Blackburn	D	TN	1	yes	One of two signees on a $2 million earmark.	
79	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Blumenauer	R	OR	7	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
80	RDTE	C-2 Service Level Management Program	10,000	Electronic Systems Center - Hanscom AFB	Blunt	D	MO	3	yes		
81	RDTE	EMP Protected Computer Hardware	2,000	Missouri State University-Jordan Valley Innovation Center - Springfield, MO	Blunt	R	MO	7	yes		
82	RDTE	Joint Stand Off Missile	1,500	LaBarge Inc. - Joplin, MO	Blunt	R	MO	7	yes	One of two signees on a $3 million earmark	
83	RDTE	Laser Communications	2,000	Space Photonics, Inc. - Fayetteville, AR	Boozman	R	AR	7	yes	One of two signees on a $4 million earmark	
84	MilCon	NW Field Technical Training Facility	5,800	Anderson AFB, Guam	Bordallo	R	GU	3	yes		
85	RDTE	Ground Warfare Accoustical Combat	1,250	GWACS Defense, Inc. - Tulsa, OK	Boren	D	OK	2	yes	One of two signees on a $2.5 million earmark	
86	Procurement	McAlester AAP Bomb Line Modernization	5,000	McAlester AAP, OK	Boren	D	OK	2	yes		no
87	Procurement	Outloading Module McAlester AAP	5,000	McAlester AAP, OK (with Picatinny Arsenal, NJ)	Boren	D	OK	2	yes		
88	MilCon	Training Facility Phase V	2,700	Camp Gruber Training Facility, OK	Boren	D	OK	1	yes		
89	Procurement	XM982 Excalibur 155mm ERAP	10,550	Picatinny Arsenal, NJ; Raytheon Missile Systems- Tucson, AZ	Boren	D	OK	2	yes	One of two signees to a $21.1 million earmark for the Excalibur artillery projectile	
90	RDTE	China Geo-Space Intelligence (GCI)	2,000	3001, Inc. Geospatial Company - Fairfax, VA	Boustany	R	LA	7	yes	One of two signees on a $4 million earmark	
91	Procurement	LPD 17 Class Expeditionary Warfare Ship	340,000	Northrop Grumman- Los Angeles, CA	Boustany	D	LA	2	yes	One of five signees on a $1.7 billion earmark for an additional LPD ship	
92	RDTE	Advanced Extended Range Attack Missile (AERAM)	5,000	AMRDEC	Boyda	D	KS	2	yes		
93	O&M	Coming Together Around Military Families- grants for family counseling	3,250	Zero to Three- Washington, DC	Boyda	D	KS	2	yes	One of two signees on a $6.5 million earmark	
94	Procurement	Flatbed tactical trailer refurbishment (M 871)	1,450	Army National Guard Readiness Center- Arlington, VA	Boyda	D	KS	2	yes	One of two signees on a $3 million earmark	

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95	Procurement	Great Plains Joint Regional Training Center Radios	500	Smoky Hill Weapons Range- Salina, Kansas	Boyda	D	KS	2	yes		
96	Procurement	Great Plains Joint Regional Training Center Safety Equipment	2,000	Smoky Hill Weapons Range- Salina, Kansas	Boyda	D	KS	2	yes		
97	O&M	Leadership for Leaders at Command and General Staff College at Ft Leavenworth	1,000	Kansas State University- Manhattan, KS	Boyda	D	KS	2	yes		
98	MilCon	Military Working Dog Facility	1,900	Fort Riley, KS	Boyda	R	KS	7	yes		
99	O&M	Parents as Teachers Heroes at Home-Family counseling	1,000	Parents as Teachers National Center- St. Louis, MO	Boyda	D	KS	2	yes	One of three signees on a $3 million earmark	
100	RDTE	76mm Super Rapid Medium Caliber Gun System Explosives Safety Review	5,000	Otc Melara North America, Inc.- Lester, PA	Brady, Robert	D	PA	2	yes		
101	RDTE	Advanced Robotics Mobility	2,000	University of Pennsylvania- Philadelphia, PA	Brady, Robert	D	PA	1	yes		
102	RDTE	Combined Bomb Unit (CBU) Decasing and Disposal	3,800	Day and Zimmerman: Hawthorne Corporation - Hawthorne, NV	Brady, Robert	D	PA	1	yes		
103	RDTE	High Speed Power Node Switching	1,333	SPD Electrical Systems - Philadelphia, PA	Brady, Robert	D	PA	1	yes	One of three signees on a $4 million earmark	
104	RDTE	In-Transit Cargo Visibility System	1,000	ePortation - Philadelphia, PA	Brady, Robert	D	PA	1	yes		
105	RDTE	Polymer Matrix Composites for Rotocraft	8,000	V Systems Composites, Inc. - Chester, PA	Brady, Robert	D	PA	1	yes		no
106	RDTE	Propelling Agent (Slurry Gel)	1,200	Day and Zimmerman: Hawthorne Corporation - Hawthorne, NV	Brady, Robert	D	PA	1	yes		
107	RDTE	Universal Communications Bridge for DoD and First Responders	3,500	Rydal Research and Development - Chester, PA	Brady, Robert	D	PA	1			
108	RDTE	F136 Interchangable Engine	240,000	Rolls-Royce - Indianapolis, IN	Butterfield	D	NC	1	yes	One of two separate earmarks for the same project by the same legislator	
109	RDTE	F136 Interchangable Engine	240,000	Rolls-Royce - Indianapolis, IN	Butterfield	D	NC	1	yes	One of two separate earmarks for the same project by the same legislator	
110	RDTE	Integrated Lightweight Electronics Shelter	1,750	Purdue University - West Lafayette, IN	Buyer	R	IN	4	yes		
111	Procurement	M153 Time Delayed Firing Device	3,000	Raytheon- Indianapolis, IN	Buyer	R	IN	4	yes	One of two signees on a $6 million earmark	
112	RDTE	Tactical Wheeled Vehicle Structures	5,000	Alpha Defense Inc. - Lafayette, IN	Buyer	R	IN	4	yes	One of two signees on a $10 million earmark	
113	RDTE	Advanced Measurement Standards Development	7,500	Naval Surface Warfare Center, Corona, CA	Calvert	R	CA	44	yes		
114	Procurement	C-17 Globemaster III	345,700	USAF Aeronautical Center, Wright Patterson AFB, OH	Calvert	R	CA	44	yes	One of seven signees on $2.4 billion earmark for 10 new C-17s	
115	RDTE	California Space Infra Project (CSIP) Continuity	500	Space and Missile Systems Center - El Segundo, CA	Calvert	R	CA	44	yes	One of two signees on a $1 million earmark	
116	RDTE	F-35 Electromagnetic Interference (EMI) Shielding	4,000	Air Force Research Lab, Wright Patterson AFB, OH	Calvert	R	CA	44	yes		
117	RDTE	Ground On-Board Oxygen Generation System (GO-BOGS)	2,500	Army Medical Research and Material Command - Fort Daterick, MD	Calvert	R	CA	44	yes		
118	MilCon	Joint Regional Deployment Processing Facility and Passenger Terminal	1,000	MARCH ARB, CA	Calvert	R	CA	44	yes		
119	RDTE	Medical Free Electron Laser Program	3,600	Air Force Office of Scientific Research - Wright-Patterson AFB, OH	Calvert	R	CA	44	yes	One of five signees on an $18 million earmark	
120	RDTE	Fiber Optic Acoustic Systems	2,000	Northrop Grunman - Salt Lake City, Utah	Cannon	R	UT	3	yes	One of two signees on a $4 million earmark	
121	RDTE	California Space Infra Project (CSIP) Continuity	500	California Space Authority - Santa Maria, CA	Capps	D	CA	23	yes	One of two signees on a $1 million earmark	
122	Procurement	UH-60 Medevac and SAR Thermal Imaging	1,650	Army National Guard Unit- Salem, OR	Capps	R	CA	23	yes	One of three signees on a $5 million earmark	
123	Procurement	C-17 Globemaster III	345,700	Boeing-Long Beach, CA	Carnahan	D	MO	3	yes	One of seven signees on $2.4 billion earmark for 10 new C-17s	
124	Procurement	Light Weight 155mm Howitzer (T)	727	BAE Systems Inc.	Carnahan	D	MO	3	yes	One of 11 signees on a $8 million earmark	
125	Procurement	Light Weight 155mm Howitzer (T)	727	BAE Systems Inc.	Carnahan	D	MO	3	yes	One of 11 signees on a $8 million earmark	
126	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	Carnahan	D	MO	3	yes	One of 12 signees on a $14 million earmark	
127	MilCon	Explosive Ordinance Facility	3,500	MacDill AFB- Tampa FL	Castor	D	FL	11	yes		

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128	RDTE	Health Informatics Initiative	3,500	University of South Florida College of Public Health - Tampa, FL	Bilirakis	D	FL	11	yes		
129	RDTE	National Functional Genomics Center	10,000	H. Lee Moffitt Cancer Center and Research Institute - Tampa, FL	Castor	D	FL	11	yes		
130	MilCon	Fire and Movement Range	1,300	Fort Sill, OK	Cole	R	OK	4	yes		
131	Procurement	Fire Trainer Iteration II/ Joint Fires and Effects Trainer System	5,000	Techrizon, LLC- Lawton, OK (execution at Fort Still, OK)	Cole	R	OK	4	yes		
132	RDTE	Ground Warfare Accoustical Combat	1,250	GWACS Defense, Inc. - Tulsa, OK	Cole	R	OK	4	yes	One of two signees on a $2.5 million earmark	
133	RDTE	HIMARS Modular Launcher Communications System (MLCS)	2,500	Techrizon, LLC - Lawton, OK	Cole	R	OK	4	yes		
134	RDTE	Infrared Materials Center	2,000	Ardmore Development Authority - Ardmore, OK	Cole	R	OK	4	yes		
135	RDTE	Joint Fire and Effects Training System	7,200	Institute for Creative Technologies - Manna Del Rey, CA (execution at Fort Sill, OK)	Cole	R	OK	4	yes		
136	Procurement	MSOGS Reliability	2,000	ARINC- Oklahoma City, OK	Cole	R	OK	4	yes		
137	Procurement	UH-60 Medevac and SAR Thermal Imaging	1,650	FLIR Systems, Inc.- Wilsonville, OR	Cole	R	OK	4	yes	One of three signees on a $5 million earmark	
138	Procurement	XM982 Excalibur 155mm ERAP	10,550	Raytheon Missile Systems-Tucson, AZ	Cole	R	OK	4	yes	One of two signees to a $21.1 million earmark for the Excalibur artillery projectile	
139	MilCon	Addition to Fitness Center	600	Goodfellow AFB- San Angelo, TX	Conaway	R	TX	11	yes		
140	RDTE	Enhanced Holographic Imager	3,500	Zebra Imaging - Austin, TX	Conaway	R	TX	11	yes	One of two signees on a $7 million earmark	
141	RDTE	Maritime Identi Surveillance Technology (MIST)	933	Office of Naval Research - Arlington, VA	Conaway	R	TX	11	yes	One of three signees on a $2.8 million earmark	
142	RDTE	Center for Pulsed Power and Power Electronics	4,000	Texas Tech University - Lubbock, TX	Conaway	R	TX	11	yes	One of two signees on a $8 million earmark	
143	RDTE	Advanced Protemics Program	4,000	Vanderbuilt University Medical Center-Nashville, TN	Cooper	D	TN	5	yes		
144	O&M	ARNG Battery Modernization Program	1,000	Houston Barracks- Nashville, TN	Cooper	D	TN	5	yes	One of two signees on a $2 million earmark.	
145	RDTE	Medical Free Electron Laser Program	3,600	Air Force Office of Scientific Research	Cooper	D	TN	5	yes	One of five signees on an $18 million earmark	
146	Procurement	Windows Based Advanced Field Artillery Tactical Data Systems (AFATDS)	4,200	Houston Barracks- Nashville, TN	Cooper	D	TN	5	yes		
147	RDTE	Ultra Lightweight Metallic Armor	4,500	Magnesium Electron North America, Inc. - Madison, IL	Costello	D	IL	12	yes		
148	RDTE	Optikey Authentication Technology	3,000	Air Force Research Laboratory - Hanscom AFB	Courtney	D	CT	2	yes	One of two signees on a $6 million earmark	
149	RDTE	Persistent Littoral Undersea Surveillance (PLUS) Program	4,800	SAIC - Mystic, CT	Courtney	D	CT	2	yes		
150	RDTE	Tracking the Health of Soldiers with Advanced Implementation Nano-Sensors	2,500	University of Connecticut - Storrs, CT	Courtney	D	CT	2	yes		
151	RDTE	Twinline Thinline (TWTL) Submarine Towed Array	4,500	Chesapeake Sciences Corporation-Millersville, MD & Stonington, CT	Courtney	D	CT	2	yes		
152	Procurement	Virginia Class Submarine (VCS) Advance Procurement	84,000	Electric Boat- Groton, CT	Courtney	D	CT	2	yes	One of seven signees on a $588 million earmark for an additional Virginia Class submarine	
153	RDTE	Automated Helicopter Load Acquisition System	360	Square One Systems Design- Jackson, WY	Cubin	R	WY	1	yes		no
154	RDTE	Robotic Manipulators for Explosive Ordinance Disposal	570	Square One Systems Design - Jackson, WV	Cubin	R	WY	1	yes		
155	RDTE	Knowledge Integration ond Management Center of Excellence (KIMCOE)	3,000	Morgan State University - Baltimore, MD	Cummings	D	MD	7	yes		
156	RDTE	Portable Flexible Communication Display Devices	1,000	Universal Display Corporation - Ewing, NJ	Cummings	D	MD	7	yes	One of five signees on a $5 million earmark	no
157	Procurement	UH-60 A-L Engine Upgrade	1,250	Sikorsky Aircraft Corporation- Stratford, CT	Cummings	R	MD	1	yes	One of four signees on a $5 million earmark	
158	RDTE	Wireless Mobile Networking	4,500	Optemax LLC - Marriottsville, MD	Cummings	D	MD	7	yes		
159	RDTE	Improved Collapsible Urethane Fuel Storage Tanks	1,000	Seaman Corporation - Wooster, OH & Bristol, TN	Davis, David	R	TN	1	yes	One of two signees on a $2 million earmark	
160	RDTE	Assured Domestic Fuels	10,000	USAF Coal to Liquid	Davis, Geoff	R	KY	4	yes		

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161	Procurement	Joint Trans Decon System (JSTDS-SS)	2,500	DRS Kentron, Hopkinsville, KY	Davis, Geoff	R	KY	4	yes	One of two signees on a $5 million earmark	
162	RDTE	Maritime Identi Surveillance Technology (MIST)	933	Global Delta LLC, Washington, DC	Davis, Geoff	R	KY	4	yes	One of three signees on a $2.8 million earmark	
163	RDTE	Nanofluids for Military Ground Vehicles	2,500	Ashland Inc. Covington, KY	Davis, Geoff	R	KY	4	yes		
164	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Davis, Geoff	R	KY	4	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
165	MilCon	Electromagnetic Launch (Railgun) RDTE Facility	10,000	Naval Support Activity South Potomac-Dahlgren, VA	Davis, Jo Ann	R	VA	1	yes		
166	RDTE	Jefferson Lab High Power FEL Development for Naval Applications	5,000	Jefferson Lab - Newport News, VA	Davis, Jo Ann	R	VA	1	yes		
167	Procurement	Virginia Class Submarine (VCS) Advance Procurement	84,000	Northrop Grumman Newport News, VA	Davis, Jo Ann	R	VA	1	yes	One of seven signees on a $588 million earmark for an additional Virginia Class submarine	
168	RDTE	DDG-51 Class Perm Magnet Drive Sys	4,000	General Atomics - San Diego, CA	Davis, Susan	D	CA	53	yes	One of two signees on a $8 million earmark	
169	RDTE	Electromagnetic Geolocation	2,000	QUASAR Federal Systems - San Diego, CA	Davis, Susan	D	CA	53	yes		
170	RDTE	Infectious & Inflammatory Disease Center for Excellence	2,000	Burnham Institute for Medical Research (BIMR) - La Jolla, CA	Davis, Susan	D	CA	53	yes		
171	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	DeFazio	D	OR	4	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
172	MilCon	Replace Squadron Operations	1,043	Colorado Air National Guard	DeGette	D	CO	1	yes	One of seven signees on a $7.3 million earmark	
173	O&M	Coming Together Around Military Families- grants for family counseling	3,250	Zero to Three- Washington, DC	DeLauro	D	CT	3	yes	One of two signees on a $6.5 million earmark	
174	Procurement	F-16 Block 42 Engine Upgrades- ANG	3,675	Pratt and Whitney- East Hartford, CT	DeLauro	D	CT	3	yes	One of eight signees to a $29.4 million earmark for an alternative engine program for the F-16	
175	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	DeLauro	D	CT	3	yes	One of 12 signees on a $14 million earmark	
176	RDTE	Sythetic Malaria Vaccine	2,000	Vaxinnate Ince. - Cranbury, NJ	DeLauro	D	CT	3	yes	One of two signees on a $4 million earmark	
177	RDTE	Document Analysis and Exploitation Capabilities	8,000	Lehigh University - Bethlehem, PA	Dent	R	PA	15	yes		
178	RDTE	Manufacturing of Precision Aspheric Optics	3,000	Edmund Optics Pennsburg - Pennsburg, PA	Dent	R	PA	15	yes	One of three signees on a $6 million earmark	
179	O&M	Maintain Fairchild AFB SAR Capability	444	Fairchild AFB- Spokane, WA	Dicks	D	WA	6	yes	One of nine signees on a $4 million earmark	
180	MilCon	Tacoma National Guard Readiness Center- Life/ Safety Renovation	76	Washington State National Guard- Tacoma, WA	Dicks	D	WA	6	yes	One of two signees on a $152 thousand earmark	
181	RDTE	Dynamometer Facility Upgrade Program	2,150	AVL Powertrain Engineering, Inc. - Plymouth, MI	Dingell	D	MI	15	yes	One of two signees on a $4.3 million earmark	
182	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Dingell	D	MI	15	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
183	RDTE	Ultrasonic Consolidation for Embeded Sensors	1,333	Solidica, Inc. - Ann Arbor, MI	Dingell	D	MI	15	yes	One of three signees on a $4 million earmark	
184	RDTE	Antiballistic Windshield Armor	4,500	DefenseCS- Mishawaka, IN	Donnelly	D	IN	2	yes		
185	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Doolittle	R	CA	4	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
186	MilCon	SOF Parachute Drying Tower	5,300	NAS Oceana, Dam Neck Annex, VA	Drake	R	VA	2	yes		
187	Procurement	Virginia Class Submarine (VCS) Advance Procurement	84,000	Northrop Grumman Corporation-Arlington, VA	Drake	R	VA	2	yes	One of seven signees on a $588 million earmark for an additional Virginia Class submarine	
188	O&M	MBU-20P Oxygen Mask and Mask Light	2,000	Gentex Corporation- Rancho Cucamonga, CA	Dreier	R	CA	26	yes		
189	RDTE	Micro-Seeker System for Small Steerable Projectiles	5,000	Tanner Research Inc. - Monrovia, CA	Dreier	R	CA	26	yes		
190	RDTE	Wavelength Agile Spectral Harmonic Oxygen Sensor and Cell Level Battery Controller	5,200	Advanced Projects Research Inc. - La Verne, CA	Dreier	R	CA	26	yes		
191	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Ehlers	R	MI	3	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	

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192	RDTE	Emerging Critical Interconnection Technology Program	5,000	Naval Surface Warfare Center, Crane, IN	Ellsworth	D	IN	8	yes		
193	RDTE	High Power Fiber Laser (HPFL) Based Pod	4,000	NAWC - Patuxent River, MD	Ellsworth	D	IN	8	yes		
194	RDTE	High Pressure Food Packaging Project	5,000	AmeriQual, LLC - Evansville, IN	Ellsworth	D	IN	8	yes		
195	Procurement	Outloading Module Crane AAP	4,500	TSM Corporation- Bartlett, TN	Ellsworth	D	IN	8	yes		
196	MilCon	Special Weapons Assessment Facility, Crane Division	1,200	Naval Surface Warfare Center, IN	Ellsworth	D	IN	8	yes		
197	Procurement	UH-60 A-L Engine Upgrade	1,250	Sikorsky Aircraft Corporation- Stratford, CT	Ellsworth	D	IN	8	yes	One of four signees on a $5 million earmark	
198	Procurement	Virginia Class Submarine (VCS) Advance Procurement	84,000	BWX Technologies- Lynchburg, VA	Ellsworth	D	IN	8	yes	One of seven signees on a $588 million earmark for an additional Virginia Class submarine	
199	RDTE	Regional Ellectron Microprobe Facility at Fayetteville State	1,400	University of North Carolina General Administration Federal Relations	Etheridge	D	NC	2	yes		no
200	RDTE	Advanced Hypersonic Weapon (AHW)	7,000	U.S. Army Space and Missile Defense Command- Huntsville, AL	Everett	R	AL	2	yes		
201	RDTE	Applications Security Initiative	3,920	HQ 754th Electronics Systems Group- Maxwell AFB, AL	Everett	R	AL	2	yes		
202	MilCon	Aviation Intermediate Maintenance Hangar, Hanchey Phase I	1,500	Fort Rucker, AL	Everett	R	AL	2	yes		
203	RDTE	Combat Support Information Security Applications	1,150	Gunter Annex - Maxwell AFB, AL	Everett	R	AL	2	yes	One of two signees on a $2.3 million earmark	
204	RDTE	Gunfire Detection System for UAVs	6,000	US Army Aviation Warfighting Center - Fort Rucker, AL	Everett	R	AL	2	yes		
205	RDTE	Next Generation Interceptors	7,000	US Army Space and Missile Defense Command - Huntsville, AL	Everett	R	AL	2	yes		
206	RDTE	Phallanx Next Generation	7,800	Naval Sea Systems Command - Arlington, VA	Everett	R	AL	2	yes		
207	RDTE	Radiation Hardening Initiative	2,500	U.S. Army Space and Missile Defense Command - Huntsville, AL	Everett	R	AL	2	yes	One of two signees on a $5 million earmark	
208	RDTE	Space Control Test Capabilities	5,000	U.S. Army Space and Missile Defense Command - Redstone Arsenal, AL	Everett	R	AL	2	yes		
209	RDTE	Study of Warfighting Initiative for Future Technologies and Tactics Aviation	2,000	U.S. Army Aviation Warfighting Center - Fort Rucker, AL	Everett	R	AL	2	yes		
210	Procurement	F-16 Block 42 Engine Upgrades- ANG	3,675	Pratt and Whitney- East Hartford, CT	Fallin	R	OK	5	yes	One of eight signees to a $29.4 million earmark for an alternative engine program for the F-16	
211	RDTE	Joint Training Integration and Evaluation Center	2,150	JTIEC - Orlando, FL	Feeney	R	FL	24	yes		
212	RDTE	Cultural and Societal Modeling & Simulation	3,000	JFCOM - Suffolk, VA	Forbes	R	VA	4	yes		
213	O&M	Global Force Mgmt. Visability Toolset	2,000	JFCOM- Suffolk, VA	Forbes	R	VA	4	yes		
214	RDTE	Joint Urban Fires Prototype	1,500	JFCOM - Suffolk, VA	Forbes	R	VA	4	yes		
215	MilCon	Unit Chapel	5,900	Fort Lee, VA	Forbes	R	VA	4	yes		
216	RDTE	License Plate Recognition Initiative	1,500	Technical Support Working Grouop - Arlington, VA	Foxx	R	NC	5	yes		
217	RDTE	GEOAC Demonstration	1,500	Army Construction Engineering Research Laboratory	Franks	R	AZ	2	yes	One of two signees on a $3 million earmark	
218	Personnel	Peace Through Health Care Initiative	1,500	Operation Smile, Inc.- Norfolk, VA	Franks	R	AZ	2	yes		no
219	MilCon	Repair Airfield Pavements	5,500	Luke AFB, AZ	Franks	R	AZ		yes		
220	RDTE	Silver Fox and Manta UAS	2,500	Advanced Ceramics Research - Tucson, AZ	Franks	R	AZ	2	yes	One of two signees on a $5 million earmark	
221	Procurement	Light Weight 155mm Howitzer (T)	727	BAE Systems Inc.	Garrett	R	NJ	5	yes	One of 11 signees on a $8 million earmark	
222	RDTE	Asymmetric Threat Response and Analysis Prog. (ATRAP)	2,500	University of Arizona- Tucson, AZ	Giffords	D	AZ	8	yes	One of two signees to a $5 million earmark	
223	MilCon	Silver Bell Army Heliport Fire Station	2,000	Silver Bell Army Heliport Fire Station, AZ	Giffords	D	AZ	8	yes		
224	RDTE	Silver Fox and Manta UAS	2,500	Advanced Ceramics Research - Tucson, AZ	Giffords	D	AZ	8	yes	One of two signees on a $5 million earmark	
225	RDTE	CBR Functionally Integrated Reactive Surface Technologies (FIRST)	3,500	Starfire Systems, Inc. - Malta, NY	Gillibrand	D	NY	20	yes		
226	RDTE	ChemBio Radio Frequency ID Tags	2,500	GE Global Research - Niskayuna, NY	Gillibrand	D	NY	20	yes		
227	Procurement	Light Weight 155mm Howitzer (T)	727	BAE Systems Inc.	Gillibrand	D	NY	20	yes	One of 11 signees on a $8 million earmark	

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228	RDTE	US Navy Pandemic Influenza Vaccine	1,000	Truderm Institute - Hampton, Lancaster	Hall, John	D	NY	20	yes	One of two signees on a $2 million earmark	
229	RDTE	Active and Smart Packaging for Combat Feeding	1,420	Printpack Inc.- Atlanta, GA	Gingrey	R	GA	11	yes		
230	RDTE	Advanced Bio-engin. for Enh. of Soldier Survivability	1,000	Georgia Institute for Technology- Atlanta, GA	Gingrey	R	GA	11	yes	One of three signees on $3 million earmark.	
231	RDTE	Advanced SAM Hardware Simulator D- ITEAMS	2,666	Georgia Institute for Technology- Atlanta, GA & Dynetics, Inc.- Huntsville, AL	Gingrey	R	GA	11	yes	One of three signees on a $8 million earmark	
232	RDTE	Biofoam Protein Hydrogel for Battlefield Trauma	2,900	CryoLife-Kennesaw, GA	Gingrey	R	GA	11	yes	One of two signees on a $5.8 million earmark	
233	Procurement	Combat Arms Training System (CATS)- ARNG	6,000	FATS, Inc. - Suwanee, GA	Gingrey	R	GA	11	yes		
234	RDTE	Diagnostic/Prognostic Pump System	1,500	Global Technology Connection, Inc. - Atlanta, GA & Warren Pump - Warren, MA	Gingrey	R	GA	11	yes	One of four signees on a $6 million earmark	
235	Procurement	F-16 Block 42 Engine Upgrades- ANG	3,675	Pratt and Whitney- East Hartford, CT	Gingrey	R	GA	11	yes	One of eight signees to a $29.4 million earmark for an alternative engine program for the F-16	
236	RDTE	Gun Based RAM Defense	2,000	Georgia Institute of Technology - Atlanta, GA	Gingrey	R	GA	11	yes	One of three signees on a $6 million earmark	
237	MilCon	Marine Corps Reserve Center	310	Naval Air Station- Atlanta, GA	Gingrey	R	GA	11	yes		
238	RDTE	Wavelet Packet Modulation Modules	5,900	Scientific Research Corporation - Atlanta, GA	Gingrey	R	GA	11	yes		
239	RDTE	Buster Backpack UAV	2,500	Department of the Army	Gonzalez	D	TX	10	yes	One of two signees to a $5 million earmark	
240	RDTE	ChemBo Radio Frequency ID Tags	2,500	Wright-Patterson AFB; GE Global Research - Niskayuna, NY	Gonzalez	D	TX	10	yes		
241	RDTE	Crowd Behavior Research for Joint Non-Lethal Weapons Directorate	2,000	Southwest Research Institute - San Antonio, TX	Gonzalez	D	TX	10	yes		
242	RDTE	Hydrogen Fueling Infrastructure for the Air Force	2,000	Lackland AFB, TX	Gonzalez	D	TX	10	yes	One of two signees on a $4 million earmark	
243	RDTE	National Trauma Institute	1,600	University of Texas Health Science Center - San Antonio, TX	Gonzalez	D	TX	10	yes		
244	Procurement	C-17 Globemaster III	345,700	Vought Aircraft Industries- Dallas, TX	Granger	R	TX	12	yes	One of seven signees on $2.4 billion earmark for 10 new C-17s	
245	RDTE	Center for Pulsed Power and Power Electronics	4,000	Texas Tech University - Lubbock, TX	Granger	R	TX	12	yes	One of two signees on a $8 million earmark	
246	RDTE	Enhanced Holographic Imager	3,500	Zebra Imaging - Austin, TX	Granger	R	TX	12	yes	One of two signees on a $7 million earmark	
247	Procurement	FlexTrain Combat Training Cap (XCTC)	750	SRI International- Menlo Park, CA	Granger	R	TX	12	yes	One of five signees on a $3.8 million earmark	
248	RDTE	Internal 1000lbs Penetrator	1,667	General Dynamics - Niceville, FL	Granger	R	TX	12	yes	One of three signees on a $5 million earmark	
249	RDTE	Rivet Joint Network Interface Growth	2,000	L-3 Communications Systems - Dallas, TX	Granger	R	TX	12	yes	One of four signees on a $6 million earmark	
250	RDTE	GEOAC Demonstration	1,500	Army Construction Engineering Research Laboratory, AZ; Davis-Monthan, AZ	Grijalva	D	AZ	7	yes	One of two signees on a $3 million earmark	
251	MilCon	Combined Support Maintenance Facility, Camp Smith NY	2,700	Camp Smith, NY	Hall, John	D	NY	19	yes		
252	RDTE	Microdisplay for Army Night Vision	4,850	eMagin Corporation - Hopewell Junction, NY	Hall, John	D	NY	19	yes		
253	Procurement	Depot AIT (D-AIT) at ANAD and RRAD	1,500	Intermec Technologies Corporation PMJAIT-Fort Belvoir, VA	Hall, Ralph	R	TX	4	yes	One of four signees on a $6 million earmark	
254	RDTE	Rivet Joint Network Interface Growth	2,000	Lockheed Martin - Littleton, CO	Hall, Ralph	R	TX	4	yes	One of four signees on a $6 million earmark	
255	Procurement	Joint Trans Decon System (JSTDS-SS)	2,500	Illinois National Guard- Monmouth, IL	Hare	D	IL	17	yes	One of two signees on a $5 million earmark	
256	Procurement	Light Weight 155mm Howitzer (T)	727	BAE Systems Inc.	Hare	D	IL	17	yes	One of 11 signees on a $8 million earmark	
257	Procurement	Light Weight 155mm Howitzer (T)	727	BAE Systems Inc.	Hare	D	IL	17	yes	One of 11 signees on a $8 million earmark	
258	O&M	Maintain Fairchild AFB SAR Capability	444	Fairchild AFB- Spokane, WA	Hastings	R	WA	4	yes	One of nine signees on a $4 million earmark	
259	MilCon	235th Air Traffic Control Squadron Facility	4,000	North Carolina National Guard- Badin, NC	Hayes	R	NC	8	yes		
260	RDTE	Advanced Radar Transceiver IC Development	2,500	Sierra Monolithics- Redondo Beach, CA	Hayes	R	NC	8	yes	One of two signees on a $5 million earmark	

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261	MilCon	Community Emergency Services Facility	1,450	Fort Bragg, NC	Hayes	R	NC	8	yes	One of two signees on a $2.9 million earmark	
262	Procurement	M153 Time Delayed Firing Device	3,000	Raytheon Technical Services Corporation LLC- Indianapolis, IN	Hayes	R	NC	8	yes	One of two signees on a $6 million earmark	
263	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	Hayes	R	NC	8	yes	One of 12 signees on a $14 million earmark	
264	RDTE	Nanocrystalline Diamond Rotor Blade Leading Edge Protection	2,900	United Protective Technologies Charlotte, NC	Hayes	R	NC	8	yes		
265	Procurement	Portable Deployment Kits- Army	1,000	Savi Technology- A Lockheed Martin Company, Mountain View, CA	Hayes	R	NC	8	yes	One of two signees on a $2 million earmark	no
266	Procurement	Portable Deployment Kits- Navy	1,000	Savi Technology- A Lockheed Martin Company, Mountain View, CA	Hayes	R	NC	8	yes	One of two signees on a $2 million earmark	no
267	Procurement	Reconfigurable Wireless Range System (RWRS)	2,300	Fort Bragg, NC	Hayes	R	NC	8	yes	One of two signees on a $4.6 million earmark	
268	Procurement	Remote Activated Munitions (RAMS)	3,000	Raytheon Technical Services Corporation LLC- Indianapolis, IN	Hayes	R	NC	8	yes	One of two signees on a $6 million earmark	
269	RDTE	Superlattice Nanotechnology	4,000	Northrop Grunman - Los Angeles, CA	Hayes	R	NC	8	yes		
270	RDTE	Tactical Wireless Battlefield Solutions	2,700	Partnership for Defense Innovation - Fayetteville, NC	Hayes	R	NC	8	yes		
271	RDTE	Advanced LINAC Facility	2,300	Indiana University- Bloomington, IN	Hill	D	IN	9	yes		
272	RDTE	Precisions Munitions On-Board Recorder	1,900	Space Hardware Optimization Technology, Inc. (SHOT) - Greenville, IN	Hill	D	IN	9	yes		
273	Procurement	Defense Advanced GPS Reciever (DAGR)	4,000	Rockwell Collins, IA	Hinchey	D	NY	22	yes	One of two signees on a $8 million earmark	
274	Procurement	Global Air Traffic Management Program (GATM)	4,950	Rockwell Collins- Binghampton, NY	Hinchey	D	NY	22	yes	One of two signees on a $9.9 million earmark	
275	RDTE	Foliage Penetration Reconnaissance and Surveillance System	5,850	NovaSoi - Honolulu, HI	Hirono	D	HI	2	yes		
276	RDTE	Hawaii Undersea Chemical Weapons Assess	4,000	University of Hawaii - Honolulu, HI	Hirono	D	HI	2	yes	One of two signees on a $8 million earmark	
277	RDTE	Individual Fatigue and Oper Relevant	2,000	Archinopetics, LLC - Honolulu, HI	Hirono	D	HI	2	yes	One of two signees on a $4 million earmark	
278	RDTE	Synthetic Automotive Virtual Environments (SAVE)	3,600	Vehicle Control Training LLC - Dalton, NH	Hodes	D	NH	2	yes		
279	RDTE	Heavy Fuel Engines for UAS	4,000	Propulsion Research Team - Warren, MI	Hoekstra	R	MI	2	yes		
280	Procurement	Light Weight 155mm Howitzer (T)	727	BAE Systems Inc.	Hoekstra	R	MI	2	yes	One of 11 signees on a $8 million earmark	
281	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Hoekstra	R	MI	2	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
282	RDTE	Wheeled Vehicle Electric-Drive Maturation	3,000	US Army Tank-Automotive RDE Center - Warren, MI	Hoekstra	R	MI	2	yes	One of two signees on a $6 million earmark	
283	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	Holden	D	PA	17	yes	One of 12 signees on a $14 million earmark	
284	RDTE	Sythetic Malaria Vaccine	2,000	Vaxinnate Ince. - Cranbury, NJ	Holt	D	NJ	12	yes	One of two signees on a $4 million earmark	
285	RDTE	Tactical Metal Fabrication System (TacFab)	790	Sea Box, Inc. - East Riverton, NJ	Holt	D	NJ	12	yes	One of eight signees on a $6.3 million earmark	
286	RDTE	Lasercom Adaptive Optics	5,000	Aoptics Technology - Campbell, CA	Honda	D	CA	15	yes		
287	RDTE	Semiconductor Focus Center Research Program	8,000	Microelectronics Advanced Research Corporation (MARC) - Durham, NC	Honda	D	CA	15	yes		
288	RDTE	ShotSpotter Individual Protection System (SIPS)	3,000	ShopSpotter - Santa Clara, CA	Honda	D	CA	15	yes	One of two signees on a $6 million earmark	
289	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Hooley	D	OR	5	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
290	MilCon	Advanced Energetics Research Lab Phase I	9,500	Indian Head Naval Surface Warfare Center- Indian Head, MD	Hoyer	D	MD	5	yes		
291	RDTE	Age Exploration Model Enhancement and Vibration Analysis/Precision Measurement Integration	3,000	ManTech Systems Engineering Corp- Lexington Park, MD	Hoyer	D	MD	5	yes		
292	RDTE	Blossom Point Satellite Facility	2,000	Honeywell Corporation- La Plata, MD	Hoyer	D	MD	5	yes		
293	RDTE	Communications Upgrade for DDG Modernization	3,900	Naval Air Warfare Center Air Craft Division Division - St. Inigoes/Patuxent River	Hoyer	D	MD	5	yes		

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294	RDTE	Energetics Technology S&T Workforce Revitalization	5,000	University of MD; Energetica Technology Center, Laurel, MD	Hoyer	D	MD	5	yes		
295	RDTE	Fiber Optic Data Link - Network Expansion & Integration of ? Ranges & Facilities	6,000	Patuxent River NAS, MD	Hoyer	D	MD	5	yes		
296	RDTE	High Energy Conventional Energetics	6,000	NSWC - Indian Head, MD & Applied Research Associates, Inc. - Albuquerque, NM	Hoyer	D	MD	5	yes		
297	RDTE	RUBIX Multilevel Security Database	1,500	Infosystems Technology, Inc. - Falls Church, VA	Hoyer	D	MD	5	yes		
298	RDTE	Advanced Mission Planning Tools for SOF	2,500	Special Operations Mission Planning Office, Ft. Eustis, VA	Hulshof	R	MO	9	yes	One of two signees on a $5 million earmark	
299	Procurement	C-17 Globemaster III	345,700	Boeing-Long Beach, CA	Hulshof	R	MO	9	yes	One of seven signees on $2.4 billion earmark for 10 new C-17s	
300	RDTE	ChemBio Protective Hangars	6,000	Production Products - St. Louis, MO	Hulshof	R	MO	9	yes		
301	RDTE	Cable Warning and Obstacle Avoidance System	3,000	Trex Enterprises Corp. San Diego, CA	Hunter	R	CA	52	yes		
302	RDTE	Compact Real-time Hyperspectral ISR	1,000	Surface Optics Corporation - San Diego, CA	Hunter	R	CA	52	yes		
303	RDTE	DP-2 Vectored Thrust Aircraft	6,000	duPont Aerospace Company, Inc. - El Cajon, CA	Hunter	R	CA	52	yes		
304	RDTE	High Bandwith Ship-to-Ship Optical Communications Network	1,000	NovaSol - San Diego, CA	Hunter	R	CA	52	yes		
305	Procurement	High Performance Computing Capability	500	IBM- San Diego, CA	Hunter	R	CA	52	yes		
306	RDTE	Joint Integrated Systems for Advanced Digital Networking (JIST-NET)	2,000	San Diego DEFCOMM, El Cajon, NA	Hunter	R	CA	52	yes		
307	RDTE	Leschmaniasis Skin Test Antigen	2,000	Allermed Laboratories, Inc. San Diego, CA	Hunter	R	CA	52	yes		
308	RDTE	Light Utility Vehicle	4,000	Chenowth Product Racing Company, Inc. - El Cajon, CA	Hunter	R	CA	52	yes		
309	RDTE	Oxygen Diffusion Dressings	1,000	Oxyband Technologies, Inc. San Diego, CA	Hunter	R	CA	52	yes		
310	RDTE	Project 9359C Affordable Weapon System	30,000	L-3 Communications - San Diego, CA	Hunter	R	CA	52	yes		
311	RDTE	Rapid Identification of Technology Sources	500	San Diego East County Economic Development Council - El Cajon, CA	Hunter	R	CA	52	yes		
312	O&M	Southwest Border Fence	8,000	Defense Wide	Hunter	R	CA	52	yes		
313	RDTE	Tactical E-Field Buoy Development Program	6,000	Information Systems Laboratories - San Diego, CA	Hunter	R	CA	52	yes		
314	Procurement	Weapon Retriever Vehicle	2,000	The Marine Group Inc., Chula Vista, CA	Hunter	R	CA	52	yes		
315	RDTE	X-Craft (Sea-Fighter/Project 9359C)	22,000	L-3 Communications - San Diego, CA	Hunter	R	CA	52	yes		
316	RDTE	Advanced Carbon-Fiber- Cost and Energy Red.	1,300	Cytec- Rock Hill, SC	Inglis	R	SC	4	yes	One of three signees on $4 million earmark.	
317	RDTE	Fuel Reduction Research for Army TACOM/ National Automotive Center	6,000	TACOM - Warren, MI	Inglis	R	SC	4	yes		
318	RDTE	Advanced Non-Lethal Hail and Warning System	1,750	B.E. **Meyers** Company- Redmond, WA	Inslee	D	WA	1	yes	One of four signees on a $7 million earmark	
319	RDTE	Force Health Protection Genotyping System	750	CombiMatrix Corporation - Mukiltao, WA	Inslee	D	WA	1	yes	One of two signees on a $1.5 million earmark	
320	RDTE	Lightweight Corn Trasm for Imaging Laser Radar	1,600	Aculight Corporation - Bothell, WA	Inslee	D	WA	1	yes	One of three signees on a $4.8 million earmark	
321	O&M	Maintain Fairchild AFB SAR Capability	444	Fairchild AFB- Spokane, WA	Inslee	D	WA	1	yes	One of nine signees on a $4 million earmark	
322	Procurement	AN/SPQ-9B Radar for DDG 51 Modem Prog	2,666	NGC Electronic Systems- Melville, NY	Israel	D	NY	2	yes	One of three signees on a $8 million earmark	
323	RDTE	Distributed detection, classification localization (DCL)	3,000	Advanced Acoustic Concepts - Hauppaga, NY	Israel	D	NY	2	yes		
324	Procurement	Ground Multiband Terminal (GMT)	5,000	USAF Communications Unit	Israel	D	NY	2	yes		
325	Procurement	LPD 17 Class Expeditionary Warfare Ship	340,000	Northrop Grumman- Los Angeles, CA	Jefferson	D	LA	2	yes	One of five signees on a $1.7 billion earmark for an additional LPD ship	
326	Procurement	LPD 17 Class Expeditionary Warfare Ship	340,000	Northrop Grumman- Los Angeles, CA	Jefferson	D	LA	2	yes	One of five signees on a $1.7 billion earmark for an additional LPD ship	
327	RDTE	China Geo-Space Intelligence (GCI)	2,000	3001, Inc. Geospatial Company - Fairfax, VA	Jindal	R	LA	1	yes	One of two signees on a $4 million earmark	

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328	Procurement	LPD 17 Class Expeditionary Warfare Ship	340,000	Northrop Grumman- Los Angeles, CA	Jindal	R	LA	1	yes	One of five signees on a $1.7 billion earmark for an additional LPD ship	
329	RDTE	Advanced Bio-engin. for Enh. of Soldier Survivability	1,000	Georgia Institute for Technology- Atlanta, GA	Johnson, Hank	D	GA	4	yes	One of three signees on $3 million earmark.	
330	RDTE	Advanced SAM Hardware Simulator D- ITEAMS	2,666	Georgia Institute for Technology- Atlanta, GA	Johnson, Hank	D	GA	4	yes	One of three signees on a $8 million earmark	
331	RDTE	Gun Based RAM Defense	2,000	Georgia Institute of Technology - Atlanta, GA	Johnson, Hank	D	GA	4	yes	One of three signees on a $6 million earmark	
332	RDTE	Integrated Composite Mounding Hardware	2,000	CVC Enterprises, Inc. Decafur, GA	Johnson, Hank	D	GA	4	yes		
333	RDTE	Semiconductor Focus Center Research Program	4,000	Georgia Institute of Technology - Atlanta, GA	Johnson, Hank	D	GA	4	yes	One of two signees on an $8 million earmark	
334	RDTE	Human Clinical Trials - Infusable Hemostatic	8,275	Navy Medical Research Center - Silver Spring, MD	Jones, Walter	R	NC	3	yes		
335	MilCon	Main Gate Security Upgrades Phase II	4,200	Marine Corps Air Facility- New River, NC	Jones, Walter	R	NC	3	yes		
336	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Jordan	R	OH	4	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
337	RDTE	Metals Affordability Initiative	1,167	Air Force Research Laboratory, Wright-Patterson AFB, OH	Kaptur	D	OH	9	yes	One of 12 signees on a $14 million earmark	
338	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Kaptur	D	OH	9	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
339	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Kildee	D	MI	5	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
340	Procurement	Stryker Vehicles	11,760	General Dynamics Land Systems	Kilpatrick	D	MI	13	yes	One of 25 signees on a $294 million earmark for Stryker vehicles.	
341	Procurement	LSD 41 Class 60 Ton Crane Controls	1,000	Rockwell Automation- Milwaukee, WI	Kind	D	WI	3	yes	One of four signees on a $4 million earmark	
342	RDTE	Soldier Sensor Computing	2,000	Sillicon Logic Engineering - Eau Claire, WI	Kind	D	WI	3	yes		
343	Personnel	Additional WMD CST Team for NY and FL	1,150	New York National Guard- Latham, NY	King, Peter	R	NY	3	yes	One of two signees on $2.3 million earmark to add civil support teams.	no
344	Procurement	JP-5 Manifold (globe) (EVOs)	2,300	Curtiss Wright Corporation- E. Farmingdale, NY	King, Peter	R	NY	3	yes	One of three signees on a $6.9 million earmark	
345	Procurement	UH-60 A-L Engine Upgrade	1,250	Sikorsky Aircraft Corporation- Stratford, CT	King, Peter	R	NY	3	yes	One of four signees on a $5 million earmark	
346	Procurement	UH-60 Medevac and SAR Thermal Imaging	1,650	U.S. Army National Guard- Rochester, Islip, and Albany, NY	King, Peter	R	NY	3	yes	One of three signees on a $5 million earmark	
347	O&M	Undistributed Florida-New York Civil Support Teams	1,200	New York National Guard - Latham, NY	King, Peter	R	NY	3	yes	One of two signees on a $2.4 million earmark	
348	RDTE	Bi-Directional English-Iraqi Instant Language Translator	5,225	SpeechGear, Inc.- Northfield, MN	Kline	R	MN	2	yes		
349	MilCon	Combined Arms Collective Training (CACTF), Phase 2	621	Camp Ripley, MN	Kline	R	MN	2	yes		
350	Procurement	Envelop Protective Covers	2,500	Shield Tenologies Corporation, Eagan, MN	Kline	R	MN	2	yes	One of two signees on a $5 million earmark	
351	Procurement	FlexTrain Combat Training Cap (XCTC)	750	Camp Ripley, MN National Guard; SRI International- Menlo Park, CA	Kline	R	MN	2	yes	One of five signees on a $3.8 million earmark	
352	Procurement	LSD 41 Class 60 Ton Crane Controls	1,000	Rockwell Automation- Milwaukee, WI	Kline	R	MN	2	yes	One of four signees on a $4 million earmark</t	

Exhibit # 26; See Line Item 318

Exhibit # 27

Congressional Earmarks

A database of lawmakers, earmarks, and campaign giving.

How to use this database

Find a lawmaker

Name Any go

State Any go

Show all lawmakers

Find a recipient

Name go

State Any go

Show all recipients

Graphic analysis

- Earmark growth since 1994 (PDF)
- Who gave the most from 2001-2007? (PDF)
- Who got the most from 2001-2007? (PDF)

Recipient

B E Meyers & Co Inc (Redmond, WA)

Industry: Manufacturing; Optical Instruments/ Lenses
Website: http://www.bemeyers.com/

Totals
2007 defense earmarks: **$1,560,000**
Total spent on lobbying: **$80,000**
2001-07 Campaign contributions: **$12,600**

Lawmakers

Lawmaker	Party	Chamber	State
Reichert, Dave	R	House	WA

Earmarks

Title	Category	Heading	Description	Amount
Durable Illumination Aiming Laser-Green/Dial 1000	Procurement, Defense-Wide Explanation Of Project Level Adjustments	SMALL ARMS & WEAPONS	Procurement	$1,560,000

Lobbyists

Lobbyist name	Amount	Lobbied organization	Purpose
Capitol Resources Washington Representation	$40,000	House, Senate, Defense Department	FY 07 Defense Appropriations and Authorizations bills Special Operations Forces (SOF) Electro o... more
Lundquist, Nethercutt & Griles LLC	$40,000	House, Senate, Defense Department	HR 5361 Defense Appropriations Act Procurement of laser designation and other optical equipment

Top contributions **Download complete contribution spreadsheet**

Contributor	Amount	Date	Lawmaker
Meyers, Nancy, BE Meyers/Owner	$2,000	07/15/2004	Inslee, Jay R.
Meyers, Nancy, BE Meyers/Owner	$500	07/15/2004	Inslee, Jay R.
Meyers, Brad Mr.	$800	06/15/2005	Inslee, Jay R.
Meyers, Nancy, BE Meyers/Owner	$2,100	06/15/2005	Inslee, Jay R.
Meyers, Nancy, BE Meyers/Owner	$2,100	06/15/2005	Inslee, Jay R.
Meyers, Nancy, part owner/BE Meyers and Co	$500	12/07/2005	Larsen, Rick R.
Meissner, Robert M, executive/BE Meyers and Co.	$250	12/07/2005	Larsen, Rick R.
Meyers, Brad, operating officer/BE Meyers and Co	$250	09/19/2006	Larsen, Rick R.
Meyers, Nancy, part owner/BE Meyers and Co	$250	09/19/2006	Larsen, Rick R.
Meyers, Nancy, B E Meyers & Co Inc/Executive	$250	05/20/2005	McMorris, Cathy Ann
Meyers, Brad, B E Meyers & Co/Executive	$750	03/23/2006	McMorris, Cathy Ann
Meyers, Nancy	$350	04/28/2006	Reichert, Dave
Meyers, Brad, BE Meyers/Executive	$1,000	09/19/2006	Reichert, Dave
Meyers, Nancy, None/Homemaker	$1,000	09/19/2006	Reichert, Dave
Meyers, Nancy, homemaker	$500	09/18/2006	Smith, Adam

Exhibit # 27