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Atty Ref/Docket No.: 1547.087US1	Patent and Trademark Office
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1. Name of conveying party(ies):	<ol><li>Name and address of receiving party(ies):</li></ol>
Bryan F. Berlin and Kim L. Christianson	Name: Raytheon Company
Additional name(s) of conveying party(ies) attached?	Street Address: <u>870 Winter Street</u>
[ ]Ycs [X]No	City: Waltham State: MA Zip: 02451-1449
3. Nature of conveyance:	Additional name(s) & address(es) attached? [ ]Yes [X]No
[X] Assignment [ ] Merger [ ] Security Agreement [ ] Change of Name [ ] Other  Execution Date: June 1, 2009, June 10, 2009	
<u> </u>	
4. Application number(s) or patent number(s):	
If this document is being filed together with a new applicatio	
A. Patent Application No.(s)	B. Patent No.(s)
Serial No. 12/429,811, filed April 24, 2009	
Additional numbers attached? [ ]Yes [X]No	
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: $\underline{1}$
	7. Total fee (37 CFR 3.41):\$ 40.00
Name: Thomas C. Obermark	[ ]Enclosed
Address:	[X]Authorized to be charged to deposit account 19-0743
Schwegman, Lundberg & Woessner, P.A. P.O. Box 2938 Minneapolis, MN 55402-0938	8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743
DO NOT US	E THIS SPACE
9. Statement and signature.	
To the best of my knowledge and belief, the foregoing inform of the original document.	nation is true and correct and any attached copy is a true copy
Thomas C. Obermark/Reg. No. 55,506 Name of Person Signing	July 23, 2009 Signature Date

Mail documents to be recorded with required cover sheet information to:

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> PATENT REEL: 023007 FRAME: 0729

Total number of pages including cover sheet: 5

## ASSIGNMENT

WHEREAS, We, Bryan F. Berlin, residing at 3341 W. Cinnamon Drive, Tucson, AZ 85741, and Kim L. Christianson, residing at 11547 N. Flat Iron Drive, Oro Valley, AZ 85737, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States on April 24, 2009, which application was assigned U.S. patent application serial number 12/429,811, and is entitled METHODS AND APPARATUS FOR HIGH-IMPULSE FUZE BOOSTER FOR INSENSITIVE MUNITIONS;

AND WHEREAS, <u>Raytheon Company</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>Delaware</u>, and having an office and place of business at <u>870</u> Winter Street. Waltham, <u>MA 02451-1449</u> (hereinafter "Assignee"), is desirous of acquiring the entire right, priority right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions—and improvements—disclosed in the—aforesaid—application, and in—and—to—the said application, all divisions, continuations, continuations—in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No: 1547.087U\$1 Client Ref. No. 06W100 Serial Number: 12/429,811 Filing Date: April 24, 2009

Title: METHODS AND APPARATUS FOR HIGH-IMPULSE FUZE BOOSTER FOR INSENSITIVE MUNITIONS

Page 2 of 4

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

Docket No: 1547.087US1 Client Ref. No. 06W 100 Serial Number: 12/429,811 Filing Date: April 24, 2009 Title: METHODS AND APPARATUS FOR HIGH-IMPULSE FUZE BOOSTER FOR INSENSITIVE MUNITIONS Page 3 of 4

> ANDREA M.Z. BURTON NOTARY PUBLIC-ARIZONA PIMA COUNTY.

My Comm, Exp. Nov. 20, 2012

IN TESTIMONY WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of Bryan F. Berlin STATE OF ARIZONA )s
COUNTY OF PIMA On this lot day of AUNE, 20 07 before me personally appeared Bryan F. Berlin, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth. OFFICIAL SEAL

Notary Public

**PATENT** 

REEL: 023007 FRAME: 0732

Docket No: 1547.087US1 Client Ref. No. 06W100 Serial Number: 12/429,811 Filing Date: April 24, 2009 Title: METHODS AND APPARATUS FOR HIGH-IMPULSE FUZE BOOSTER FOR INSENSITIVE MUNITIONS Page 4 of 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this 10 day of
-JUNE , 20 <u>09</u> .
Jem Lane Cistanson Kim L. Christianson
STATE OF ANZOW
32(
COUNTY OF PiMa
On this 10th day of Tune, 2009 before me personally appeared Kim L.
Christianson, to me known and known to me to be the person described in and who executed the
foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and
purposes therein set forth.
OFFICIAL SEAL ANNA M. SCHUELER WARDEN AS CHURCH Schueler WARDEN AS CHURCH Schueler
PIMA COUNTY My Comm. Expires Nov. 30, 2010  Notary Public

SCHWEGMAN ■ LUNDBERG ■ WOESSNER PATENT, TRADEMARK & COFYRIGHT ATTORNEYS

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Documents Transmitted:

Assignment (4 pages), Assignment Recordation Form Cover Sheet (1 page), authorization to charge Deposit Account No. 19-0743 in the amount of \$40.00 to cover the Assignment Recording Fee.

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at 612-339-3061.

In re, Patent Application of: Bryan Berlin et al.

Examiner:

Serial No.: 12/429,811

Group Art Unit:

FROM: Thomas C. Obermark

OUR REF: 1547.087US1

Filed: April 24, 2009

Docket No.: 1547.087US1

Title: METHODS AND APPARATUS FOR HIGH-IMPULSE FUZE BOOSTER FOR

INSENSITIVE MUNITIONS

Please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Name: Thomas C. Obermark

Reg. No. 55,506

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office

on the date shown below.

RECORDED: 07/24/2009

Kevin Austad