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U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office



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To the Director of the U.S. Patent and Trademark Office, documents or the new address(es) below.

1. Name of conveying party(ies)

William B. KING
Chungte W. CHEN
Robert W. BYREN
Chaunchy F. McKEARN

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)

Name: RAYTHEON COMPANY

Internal Address:

Office of the General Counsel

Street Address:

870 Winter Street

City: Waltham

State: MA

Country: US Zip: 02451

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) August 15, 2006

- Assignment Merger
- Security Agreement Change of Name
- Joint Research Agreement
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other

4. Application or patent number(s):

This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Raytheon Company

Internal Address: EO/E04/N119

Intellectual Property & Licensing

Street Address: 2000 East El Segundo Boulevard

PO Box 902

City: El Segundo

State: CA Zip: 90245-0902

Phone Number: 310-647-3723

Fax Number: 310-647-2616

Email Address:

6. Total number of applications and patents involved: one (1)

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- Authorized to be charged by credit card
- Authorized to be charged to deposit account
- Enclosed
- None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 50-0616

Authorized User Name Leonard A. Alkov

9. Signature:

Leonard A. Alkov
Signature

August 15, 2006
Date

Leonard A. Alkov

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

6

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

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11/505271

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08/21/2006 DBYRNE 00000118 500616 11505271

01 FC:8021 (40.00 DA)

ASSIGNMENT

Attorney Docket No.: PD-05W232

Page 1 of 5

WHEREAS, I, as below named joint inventor of the city and state as stated below next to my name, have invented a:

**BEAM DIRECTOR AND BEAM CONTROL SYSTEM
FOR A HIGH ENERGY LASER WITHIN A CONFORMAL WINDOW**

for which application for Letters Patent of the United States has been executed by me, and

WHEREAS, RAYTHEON COMPANY (hereinafter referred to as RAYTHEON), a Delaware corporation, having its principal place of business in Waltham, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request the Director of the United States Patent and Trademark Office and all foreign countries to issue all such Letters Patent to said RAYTHEON, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON, its successors, assigns or other legal representatives.

RAYTHEON COMPANY
Intellectual Property & Licensing,
Bldg. EO/E04/N119 - P. O. Box 902
2000 East El Segundo Boulevard,
El Segundo CA 90245-0902
Fax: (310) 647-2592

13650 CO FEB 96[RSC/0198]

Title: **BEAM DIRECTOR AND CONTROL SYSTEM FOR A HIGH ENERGY LASER WITHIN A CONFORMAL WINDOW**

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF JOINT INVENTOR William B. KING	INVENTOR'S SIGNATURE <i>William B. King</i>	DATE SIGNED 8/15/06
RESIDENCE (CITY AND STATE) Rancho Palo Verdes, California		INVENTION AGREEMENT DATE December 3, 1971

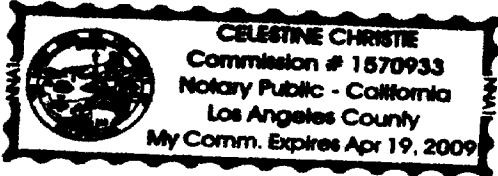
STATE OF CALIFORNIA)
 COUNTY OF LOS ANGELES) SS:

On August 15, 2006, before me, Celestine Christie, a Notary Public in and for said State, personally appeared William B. King

personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, executed the instrument.

WITNESS my hand and official seal.

Notary Public: *Celestine Christie*
 Celestine Christie



[Seal]

Title: **BEAM DIRECTOR AND CONTROL SYSTEM FOR A HIGH ENERGY LASER WITH A CONFORMAL WINDOW**

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF JOINT INVENTOR Chungte W. CHEN	INVENTOR'S SIGNATURE <i>Chungte W. Chen</i>	DATE SIGNED <i>Aug. 15, 2006</i>
RESIDENCE (CITY AND STATE) Irvine, California		INVENTION AGREEMENT DATE March 1, 1983

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)

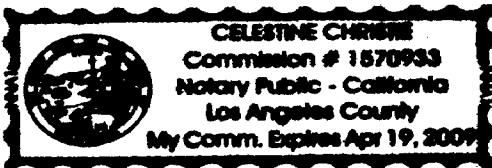
SS:

On August 15, 2006, before me, Celestine Christie, a Notary Public in and for said State, personally appeared Chungte W. Chen

personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, executed the instrument.

WITNESS my hand and official seal.


Notary Public: *Celestine Christie*
Celestine Christie



[Seal]

Title: **BEAM DIRECTOR AND CONTROL SYSTEM FOR A HIGH ENERGY LASER WITHIN A CONFORMAL WINDOW**

IN WITNESS WHEREOF, I have executed this instrument.

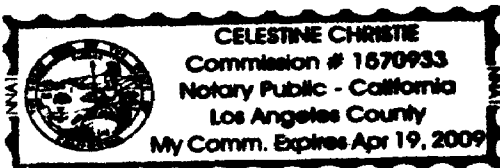
FULL NAME OF JOINT INVENTOR Robert W. BYREN	INVENTOR'S SIGNATURE 	DATE SIGNED 8/15/06
RESIDENCE (CITY AND STATE) Manhattan Beach, California		INVENTION AGREEMENT DATE September 5, 1979

STATE OF CALIFORNIA)
 COUNTY OF LOS ANGELES) SS:

On August 15, 2006, before me, Celestine Christie, a Notary Public in and for said State, personally appeared Robert W. Byren

personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person executed the instrument.

WITNESS my hand and official seal.



Notary Public: 
 Celestine Christie

[Seal]

Title: **BEAM DIRECTOR AND CONTROL SYSTEM FOR A HIGH ENERGY LASER WITHN A CONFORMAL WINDOW**

IN WITNESS WHEREOF, I have executed this instrument.

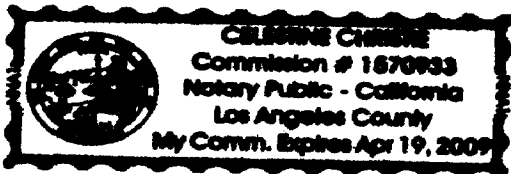
FULL NAME OF JOINT INVENTOR Chaunchy F. McKEARN	INVENTOR'S SIGNATURE <i>Chaunchy F. McKearn</i>	DATE SIGNED <i>8/15/06</i>
RESIDENCE (CITY AND STATE) Thousand Oaks, California	INVENTION AGREEMENT DATE September 2, 1986	

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)

SS:

On August 15, 2006, before me, Celestine Christie, a Notary Public in and for said State, personally appeared Chaunchy F. McKearn
 personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, executed the instrument.

WITNESS my hand and official seal.



Notary Public: *Celestine Christie*
Celestine Christie

[Seal]