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OMB No. 0651-0027 (exp. 03/31/2009)

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PATENTS ON



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To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

- 1) Joseph Terence SMITH
2) Patrick Bruckner SHEA
3) Dennis Allen ADAMS
4) Marvin Hart WHITE

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

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

Execution Date(s) August 4, 2009 & September 8, 2009

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

2. Name and address of receiving party(ies)

Name: Northrop Grumman Information Technology Inc.

Internal Address: _____

Street Address: 1840 Century Park East

City: Los Angeles

State: CA

Country: us Zip: 90067-2199

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

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: Sean Wooden

Internal Address: _____

Street Address: 1350 I Street, N.W.

Suite 1100

City: Washington

State: DC Zip: 20005

Phone Number: 202-662-2738

Fax Number: 202-662-2739

Email Address: seanwooden@andrewskurth.com

6. Total number of applications and patents involved: 1

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

- ☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number 50-2849

Authorized User Name _____

9. Signature:

Sean Wooden Signature

9-16-09 Date

Sean Wooden
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 5

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

PATENT
REEL: 023302 FRAME: 0351

Attorney Docket No.: 187412

PATENT APPLICATION

ASSIGNMENT

WHEREAS We:

<u>NAME</u>	<u>RESIDENCE</u>
Joseph Terence SMITH	8588 Dark Hawk Circle, Columbia, MD 21045
Patrick Bruckner SHEA	45 14th Street, N.E., Washington, DC 20002
Dennis Allen ADAMS	2020 Huntwood Drive, Gambrills, MD 21054
Marvin Hart WHITE	400 Bridle Path Road C-5, Bethlehem, PA 18017

respectively, are the joint inventors of certain inventions or improvements for which we have made application for a Utility Patent of the United States, entitled **PHOTOVOLTAIC SILICON SOLAR CELLS**; and

WHEREAS, **NORTHROP GRUMMAN INFORMATION TECHNOLOGY INC.** of 1840 Century Park East, Los Angeles, CA 90067-2199, a corporation operating under the laws of the state of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries of the world;

NOW, THEREFORE, for good and valuable consideration, I have assigned, and do hereby assign, to **NORTHROP GRUMMAN INFORMATION TECHNOLOGY, INC.**, its successors, assigns and legal representatives ("Nominees") the entire right, title and interest, including the right of priority, in, to and/or under said inventions or improvements throughout the world, including without limitation any and all prior U.S. Provisional Applications claimed as priority, said Utility Patent Application, any and all applications for Letters Patent, petty patents and utility model patents of the United States and of countries foreign thereto based on or claiming the priority of said Utility Patent Application, any and all Letters Patent, petty patents and utility model patents which may be granted therefor, and all continuations, divisions, reissues, extensions and renewals thereof ("Letters Patent");

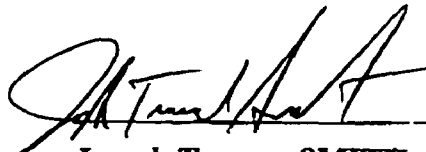
And I covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement or do anything in conflict herewith;

And I further covenant and agree that I will without undue delay execute all such papers as may be necessary to perfect the title to said inventions or improvements, applications and Letters Patents in **NORTHROP GRUMMAN INFORMATION TECHNOLOGY, INC.**, or its successors, assigns, nominees or legal representatives, and we agree to communicate to said **NORTHROP GRUMMAN INFORMATION TECHNOLOGY, INC.**, or its successors, assigns, nominees or legal representatives all known facts respecting said inventions or improvements, application and Letters Patent, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid **NORTHROP GRUMMAN INFORMATION TECHNOLOGY, INC.** or its successors, assigns, nominees or legal representatives to obtain and enforce for their own benefit patent protection for said inventions or improvements in any and all countries, all at the expense, however, of **NORTHROP GRUMMAN INFORMATION TECHNOLOGY, INC.**, or its successors, assigns, nominees or legal representatives;

And I authorize **NORTHROP GRUMMAN INFORMATION TECHNOLOGY, INC.** or its successors, assigns, nominees or legal representatives to file in our name or their own, as appropriate, applications for Letters Patents, petty patents and utility model patents in all countries of the world, and we authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country of the world, to issue to said **NORTHROP GRUMMAN INFORMATION TECHNOLOGY, INC.**, or its successors, assigns, nominees or legal representatives, any and all Letters Patents, petty patents and utility model patents for said invention or improvements, for their sole use, to the full end of the term for which such Letters Patents, petty patents and utility model patents may be granted.

IN WITNESS WHEREOF I have hereunto set my hand and seal this 4th day of

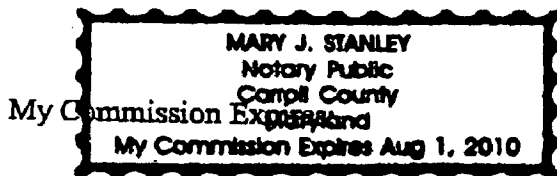
August, 2009.


(SEAL)
Joseph Terence SMITH

State of: Maryland
) ss:

County of: Anne Arundel

On this 4th day of August, 2009, before me personally came the above named **Joseph Terence SMITH** personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.



Mary J. Stanley
Notary Public

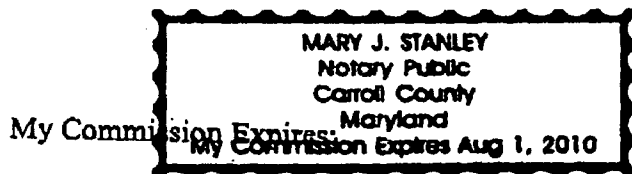
IN WITNESS WHEREOF I have hereunto set my hand and seal this 4th day of August, 2009.

Patrick B. Shea (SEAL)
Patrick Bruckner SHEA

State of: Maryland
) ss:

County of: Anne Arundel

On this 4th day of August, 2009, before me personally came the above named Patrick Bruckner SHEA personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.



Mary J. Stanley
Notary Public

IN WITNESS WHEREOF I have hereunto set my hand and seal this 4th day of August, 2009.

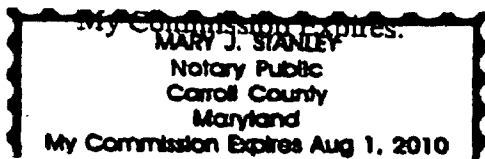
Dennis A. Adams (SEAL)
Dennis Allen ADAMS

State of: Maryland
) ss:

County of: Anne Arundel

On this 4th day of August, 2009, before me personally came the above named Dennis Allen ADAMS personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

Mary J. Stanley
Notary Public



Sep-08-09 02:08pm From-ANDREWS KURTH LLP

202-662-2739

T-402 P.009/009 F-604

IN WITNESS WHEREOF I have hereunto set my hand and seal this 8th day of SEPTEMBER, 2009.

Marvin Hart White (SEAL)
Marvin Hart WHITE

State of: Maryland

) ss:

County of: Anne Arundel

On this 8th day of SEPTEMBER, 2009, before me personally came the above named Marvin Hart WHITE personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

Mary J. Stanley
Notary Public

My Commission Expires:

