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PATENTS ONLY

Atty Ref/Docket No.: 2754.009US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

2. Name and address of receiving party(ies):

1. Name of conveying party(ies):

Name: Raven Industries, Inc.

Ron Abileah, Phillip A. Fox, Joseph W. Maresca

Street Address: PO Box 5107

Additional name(s) of conveying party(ies) attached?

City: Sioux Falls State: SD Zip: 57117-5107☐ Yes ☒ NoCountry: United States of America

3. Nature of conveyance:

Additional name(s) & address(es) attached? ☐ Yes ☒ No☒ Assignment☐ Merger☐ Security Agreement ☐ Change of Name☐ OtherExecution Date: February 29, 2012, February 28, 2012,  
February 28, 2012

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 13/317,099, filed October 7, 2011

Additional numbers attached? ☐ Yes ☒ No

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

6. Total number of applications and patents involved: 1Name: Joseph R. Williams☐ Enclosed

Address:

☒ Authorized to be charged to deposit account  
19-0743

Schwegman, Lundberg &amp; 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 USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Joseph R. Williams/Reg. No. 69,054

Name of Person Signing

Signature

March 1, 2012

Date

Total number of pages including cover sheet: 8

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

Commissioner of Patents and Trademarks

Mail Stop Assignment Recordation Services

P.O. Box 1450

Alexandria, VA 22313-1450

PATENT

REEL: 027801 FRAME: 0858

700481236

CH \$40.00 190743 13317099

Attorney's Docket No. 089985-0399798

**PATENT**

**ASSIGNMENT OF INVENTION**

For good and valuable consideration, the receipt of which is hereby acknowledged

**ASSIGNORS:**

Ron Abileah  
20 Tulip Lane  
San Carlos, CA 94070  
Citizenship: USA

Phillip A. Fox  
149 Hickory Street  
Hertford, NC 27944  
Citizenship: USA

Joseph W. Maresca, Jr.  
780 Fife Way  
Sunnyvale, California 99087  
Citizenship: USA

hereby sell, assign and transfer to

**ASSIGNEE:**

Vista Research, Inc.  
528 E. Weddell Drive, Suite 1  
Sunnyvale, CA 94089  
A California corporation

and the successors, assigns and legal representatives of the ASSIGNEE the entire right, title and interest for the United States and its territorial possessions and in all foreign countries, including all rights to claim priority, in and to any and all improvements which are disclosed in the invention entitled:

**DETECTION OF LOW OBSERVABLE OBJECTS IN CLUTTER USING NON-COHERENT RADARS**

and which is found in U.S. Application Serial No. 13/317,099 filed on October 7, 2011, which claims the benefit of U.S. Provisional Patent Application Serial No. 61/404,748 filed October 7, 2010, and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to letters patent any reissue or re-examination thereof.

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.


Assignment of Invention—page 1 of 2

**PATENT**  
**REEL: 027801 FRAME: 0859**

Date: 29 February 2012, 2011

Date:                     , 2011

Date: 28 February 2012

  
\_\_\_\_\_  
Ron Abileah

\_\_\_\_\_  
Phillip A. Fox

  
\_\_\_\_\_

Joseph W. Maresca, Jr.

Attorney Docket No. 2754.009US1  
Client Ref. No. Vista Research

### ASSIGNMENT

WHEREAS, We, Ron Abileah, residing at 20 Tulip Lane, San Carlos, CA 94070, and Phillip A. Fox, residing at 149 Hickory Street, Hertford, NC 27944, and Joseph W. Maresca Jr., residing at 780 Fife Way, Sunnyvale, CA 94087, made certain new and useful inventions and improvements which are described in an application for U.S. Letters Patent on October 7, 2011, which application was assigned U.S. patent application serial number 13/317,099, and is entitled DETECTION OF LOW OBSERVABLE OBJECTS IN CLUTTER USING NON-COHERENT RADARS:

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned do hereby:

SELL, ASSIGN AND TRANSFER to Raven Industries, Inc. (the "Assignee"), a corporation of the State of South Dakota, having a place of business at PO Box 5107, Sioux Falls, SD 57117-5107, the entire right, title and interest for the United States and all foreign countries in and to: any and all inventions and improvements which are disclosed in the identified application for U.S. Letters Patent, and which may be further identified below; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries on any of such inventions and/or improvements (including any applications for utility models); all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions and/or improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and to claim priority based on the identified application;

AUTHORIZE AND REQUEST that any attorney associated with U.S. PTO Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any information identifying this application, or any related application, below, after execution of this Assignment;

#### Additional Application Information

*U.S. Provisional Application Serial No. 61/404,748, filed on October 7, 2010.*

*No U.S. Non-Provisional claim for priority is being made at this time.*

*No International or foreign claim for priority is being made at this time.*

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

**ASSIGNMENT**

Client Ref. No. Vista Research

Assignors: Ron Abileah et al.

Title: DETECTION OF LOW OBSERVABLE OBJECTS IN CLUTTER USING NON-COHERENT RADARS

Docket No: 2754.009US1

Serial Number: 13/317,099

Page 2 of 5

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and/or property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for such improvements;

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned, and is to extend to the benefit of the successors, assigns and nominees of the Assignee.

AGREED as of the date of my signature below:

Docket No: 2754.009US1

**ASSIGNMENT**

Client Ref. No. Vistu Research

Assignors: Ron Abileah et al.

Serial Number: 13/317,099

Title: DETECTION OF LOW OBSERVABLE OBJECTS IN CLUTTER USING NON-COHERENT RADARS

Page 3 of 5

**Inventor: 1:**

(Signature): \_\_\_\_\_

Name: **Ron Abileah**

Date: \_\_\_\_\_

STATE OF CALIFORNIA)

COUNTY OF \_\_\_\_\_)

On this \_\_\_\_\_, day of \_\_\_\_\_, 2012 before me,

\_\_\_\_\_, personally appeared Ron Abileah, who 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, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

[SEAL]

\_\_\_\_\_  
Notary Public

## ASSIGNMENT

Client Ref. No. Vista Research

Assignors: Ron Abileah et al.

Title: DETECTION OF LOW OBSERVABLE OBJECTS IN CLUTTER USING NON-COHERENT RADARS

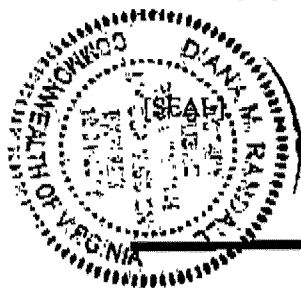
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Docket No: 2754.009US1

Serial Number: 13/317,099

IN TESTIMONY WHEREOF, I have hereunto set my hand this 28 day ofFebruary, 2012Phillip A. Fox  
Phillip A. FoxSTATE OF VirginiaCOUNTY OF Arlington )ss

On this 28 day of February, 2012 before me personally appeared Phillip A. Fox, 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.



Embossed Hereon is My  
Commonwealth of Virginia Notary Public Seal  
My Commission Expires October 31, 2018  
DIANA M. RANDALL

Diana M. Randall  
Notary Public

## ASSIGNMENT

Docket No: 2754.009US1

Client Ref. No. Vista Research

Assignors: Ron Abileah et al.

Serial Number: 13/317,099

Title: DETECTION OF LOW OBSERVABLE OBJECTS IN CLUTTER USING NON-COHERENT RADARS

Page 5 of 5

**Inventor: 3:**

(Signature): \_\_\_\_\_

Name: **Joseph W. Maresca Jr.**

Date: \_\_\_\_\_

STATE OF CALIFORNIA)

COUNTY OF \_\_\_\_\_)

On this \_\_\_\_\_, day of \_\_\_\_\_, 2012 before me,

\_\_\_\_\_, personally appeared Joseph W. Maresca Jr., who 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, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

[SEAL]

\_\_\_\_\_  
Notary Public