

Form PTO-1595 (Rev. 06-12)  
OMB No. 0651-0027 (exp. 04/30/2015)

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

**RECORDATION FORM COVER SHEET**  
**PATENTS ONLY**

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)**

K. A. Boulais, W. D. Sessions, F. Santiago,  
P. Rayms-Keller, L. R. Hale, C. A. Calcagno

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

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

Execution Date(s) 02/26/2013; 03/25/2015; 06/02/2015;  
02/26/2013; 04/19/2013 (x2)

☒ 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: United States of America, Rep by Sec of Navy

Internal Address: Chief of Naval Research

Office of Counsel, Code 00CCIP

Street Address: 1 Liberty Center

875 N. Randolph Street

City: Arlington

State: VA

Country: US Zip: 22203-1995

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

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

A. Patent Application No.(s)

13/778,323

☐ This document serves as an Oath/Declaration (37 CFR 1.63).

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

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

Name: Gerhard W. Thielman

Internal Address: Office of Counsel, Code 00L  
Naval Surface Warfare Center Dahlgren Division

Street Address: 17632 Dahlgren Road  
Suite 158

City: Dahlgren

State: VA Zip: 22448-5110

Phone Number: (540) 653-8061

Docket Number: Navy Case 100890

Email Address: gerhard.thielman@navy.mil

**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

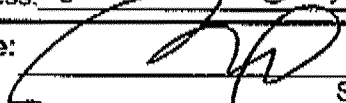
☐ None required (government interest not affecting title)

**8. Payment Information**

Deposit Account Number 50-0967

Authorized User Name Gerhard W. Thielman

**9. Signature:**

  
Signature

June 22, 2015

Date

Gerhard W. Thielman, Reg. 43,186

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

CH \$40.00 500967 13778323

## ASSIGNMENT OF INVENTION

Navy Case No. 100890

WHEREAS, we, Kevin A. Boulais of 11471 Stoneboro Court, La Plata, MD 20646; Walter D. Sessions of 11771 Fullers Lane, King George, VA 22485; Francisco Santiago of 5308 Cedar Ridge, Fredericksburg, VA 22407; Pearl Rayms-Keller of 5001 Dorsett Court, Fredericksburg, VA 22408; Lucas R. Hale of 4317 Lisa Lane, King George, VA 22485 and Craig A. Calcagno of 11130-A Sunburst Lane, Fredericksburg, VA 22407, while employed by the Government of the United States of America, hereinafter referred to as the Government, have made an invention entitled "ELECTROMAGNETIC CLOAK USING METAL LENS" identified as Navy Case No. 100890 and described in application for Letters Patent of the United States of America executed by us on Feb-26, 2013, and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, the Government is desirous of obtaining the entire right, title and interest in and to the invention disclosed in said application within the United States of America, its territories and possessions and other rights and benefits herein granted; and

WHEREAS, as to foreign rights, the Government desires an option to obtain such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to the United States of America as represented by the Secretary of the Navy the entire right, title, and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the United States of America as represented by the Secretary of the Navy to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment not been made.


We do hereby also grant unto the Government, the option to take the entire right, title and interest in and to the invention and all patent applications, patents and other forms of protection thereon in countries foreign to the United States of America within eight months of the filing date of any application for United States Letters Patent covering the invention; such option to be exercised by a written notification to us within such eight months identifying the specific foreign countries in which the Government will file or cause to be filed an application for patent or other form of protection on the invention; and that the rights in the foreign countries not exercised under the option are left to us subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on the invention in any foreign country, including the power to issue sub-licenses for use on behalf of the Government and/or in furtherance of the foreign policies of the Government.

We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, we have set our hands and affixed our seals.

2013-02-26

Date

  
Kevin A. Boulais Seal

Date

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Walter D. Sessions Seal

Date

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Francisco Santiago Seal

Date

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Pearl Rayms-Keller Seal

Date

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Lucas R. Hale Seal

Date

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Craig A. Calcagno Seal

**ASSIGNMENT OF INVENTION**

Navy Case No. 100890

WHEREAS, we, Kevin A. Boulais of 11471 Stoneboro Court, La Plata, MD 20646; Walter D. Sessions of 11771 Fullers Lane, King George, VA 22485; Francisco Santiago of 5308 Cedar Ridge, Fredericksburg, VA 22407; Pearl Rayms-Keller of 5001 Dorsett Court, Fredericksburg, VA 22408; Lucas R. Hale of 4317 Lisa Lane, King George, VA 22485 and Craig A. Calcagno of 11130-A Sunburst Lane, Fredericksburg, VA 22407, while employed by the Government of the United States of America, hereinafter referred to as the Government, have made an invention entitled "ELECTROMAGNETIC CLOAK USING METAL LENS" identified as Navy Case No. 100890 and described in application for Letters Patent of the United States of America executed by us on March 25, 2015, and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, the Government is desirous of obtaining the entire right, title and interest in and to the invention disclosed in said application within the United States of America, its territories and possessions and other rights and benefits herein granted; and

WHEREAS, as to foreign rights, the Government desires an option to obtain such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to the United States of America as represented by the Secretary of the Navy the entire right, title, and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the United States of America as represented by the Secretary of the Navy to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment not been made.

We do hereby also grant unto the Government, the option to take the entire right, title and interest in and to the invention and all patent applications, patents and other forms of protection thereon in countries foreign to the United States of America within eight months of the filing date of any application for United States Letters Patent covering the invention; such option to be exercised by a written notification to us within such eight months identifying the specific foreign countries in which the Government will file or cause to be filed an application for patent or other form of protection on the invention; and that the rights in the foreign countries not exercised under the option are left to us subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on the invention in any foreign country, including the power to issue sub-licenses for use on behalf of the Government and/or in furtherance of the foreign policies of the Government.

We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, we have set our hands and affixed our seals.

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Date  
3-25-2015  
\_\_\_\_\_  
Date

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Kevin A. Boulais Seal  
Walter D. Sessions  
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Walter D. Sessions Seal

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Date

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Francisco Santiago Seal

\_\_\_\_\_  
Date

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Pearl Rayms-Keller Seal

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Date

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Lucas R. Hale Seal

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Date

\_\_\_\_\_  
Craig A. Calcagno Seal

**ASSIGNMENT OF INVENTION**

Navy Case No. 100890

WHEREAS, we, Kevin A. Boulais of 11471 Stoneboro Court, La Plata, MD 20646; Walter D. Sessions of 11771 Fullers Lane, King George, VA 22485; Francisco Santiago of 5308 Cedar Ridge, Fredericksburg, VA 22407; Pearl Rayms-Keller of 5001 Dorsett Court, Fredericksburg, VA 22408; Lucas R. Hale of 4317 Lisa Lane, King George, VA 22485 and Craig A. Calcagno of 11130-A Sunburst Lane, Fredericksburg, VA 22407, while employed by the Government of the United States of America, hereinafter referred to as the Government, have made an invention entitled "ELECTROMAGNETIC CLOAK USING METAL LENS" identified as Navy Case No. 100890 and described in application for Letters Patent of the United States of America executed by us on June 2, 2015, and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, the Government is desirous of obtaining the entire right, title and interest in and to the invention disclosed in said application within the United States of America, its territories and possessions and other rights and benefits herein granted; and

WHEREAS, as to foreign rights, the Government desires an option to obtain such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to the United States of America as represented by the Secretary of the Navy the entire right, title, and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the United States of America as represented by the Secretary of the Navy to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment not been made.

We do hereby also grant unto the Government, the option to take the entire right, title and interest in and to the invention and all patent applications, patents and other forms of protection thereon in countries foreign to the United States of America within eight months of the filing date of any application for United States Letters Patent covering the invention; such option to be exercised by a written notification to us within such eight months identifying the specific foreign countries in which the Government will file or cause to be filed an application for patent or other form of protection on the invention; and that the rights in the foreign countries not exercised under the option are left to us subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on the invention in any foreign country, including the power to issue sub-licenses for use on behalf of the Government and/or in furtherance of the foreign policies of the Government.

We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, we have set our hands and affixed our seals.

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Date

\_\_\_\_\_  
Kevin A. Boulais Seal

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Date

\_\_\_\_\_  
Walter D. Sessions Seal

June 2, 2015  
Date

Francisco Santiago  
Francisco Santiago Seal

\_\_\_\_\_  
Date

\_\_\_\_\_  
Pearl Rayms-Keller Seal

\_\_\_\_\_  
Date

\_\_\_\_\_  
Lucas R. Hale Seal

\_\_\_\_\_  
Date

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Craig A. Calcagno Seal

**PATENT****REEL: 036010 FRAME: 0609**

**ASSIGNMENT OF INVENTION**

Navy Case No. 100890

WHEREAS, we, Kevin A. Boulais of 11471 Stoneboro Court, La Plata, MD 20646; Walter D. Sessions of 11771 Fullers Lane, King George, VA 22485; Francisco Santiago of 5308 Cedar Ridge, Fredericksburg, VA 22407; Pearl Rayms-Keller of 5001 Dorsett Court, Fredericksburg, VA 22408; Lucas R. Hale of 4317 Lisa Lane, King George, VA 22485 and Craig A. Calcagno of 11130-A Sunburst Lane, Fredericksburg, VA 22407, while employed by the Government of the United States of America, hereinafter referred to as the Government, have made an invention entitled "ELECTROMAGNETIC CLOAK USING METAL LENS" identified as Navy Case No. 100890 and described in application for Letters Patent of the United States of America executed by us on February 26, 2013, and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, the Government is desirous of obtaining the entire right, title and interest in and to the invention disclosed in said application within the United States of America, its territories and possessions and other rights and benefits herein granted; and

WHEREAS, as to foreign rights, the Government desires an option to obtain such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to the United States of America as represented by the Secretary of the Navy the entire right, title, and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the United States of America as represented by the Secretary of the Navy to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment not been made.

We do hereby also grant unto the Government, the option to take the entire right, title and interest in and to the invention and all patent applications, patents and other forms of protection thereon in countries foreign to the United States of America within eight months of the filing date of any application for United States Letters Patent covering the invention; such option to be exercised by a written notification to us within such eight months identifying the specific foreign countries in which the Government will file or cause to be filed an application for patent or other form of protection on the invention; and that the rights in the foreign countries not exercised under the option are left to us subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on the invention in any foreign country, including the power to issue sub-licenses for use on behalf of the Government and/or in furtherance of the foreign policies of the Government.

We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, we have set our hands and affixed our seals.

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Date

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Kevin A. Boulais Seal

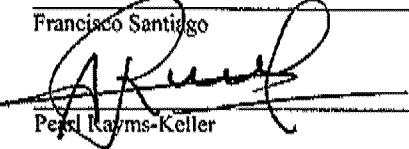
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Walter D. Sessions Seal

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Date

\_\_\_\_\_  
Francisco Santiago Seal

26 February 2013  
Date

  
Pearl Rayms-Keller Seal

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Date

\_\_\_\_\_  
Lucas R. Hale Seal

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Date

\_\_\_\_\_  
Craig A. Calcagno Seal

**PATENT****REEL: 036010 FRAME: 0610**

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**ASSIGNMENT OF INVENTION**

Navy Case No. 100890

WHEREAS, we, Kevin A. Boulais of 11471 Stoneboro Court, La Plata, MD 20646; Walter D. Sessions of 11771 Fullers Lane, King George, VA 22485; Francisco Santiago of 5308 Cedar Ridge, Fredericksburg, VA 22407; Pearl Rayms-Keller of 5001 Dorsett Court, Fredericksburg, VA 22408; Lucas R. Hale of 4317 Lisa Lane, King George, VA 22485 and Craig A. Calcagno of 11130-A Sunburst Lane, Fredericksburg, VA 22407, while employed by the Government of the United States of America, hereinafter referred to as the Government, have made an invention entitled "ELECTROMAGNETIC CLOAK USING METAL LENS" identified as Navy Case No. 100890 and described in application for Letters Patent of the United States of America executed by us on February 19, 2013, and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, the Government is desirous of obtaining the entire right, title and interest in and to the invention disclosed in said application within the United States of America, its territories and possessions and other rights and benefits herein granted; and

WHEREAS, as to foreign rights, the Government desires an option to obtain such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to the United States of America as represented by the Secretary of the Navy the entire right, title, and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof; said invention, application and Letters Patent to be held by the United States of America as represented by the Secretary of the Navy to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment not been made.

We do hereby also grant unto the Government, the option to take the entire right, title and interest in and to the invention and all patent applications, patents and other forms of protection thereon in countries foreign to the United States of America within eight months of the filing date of any application for United States Letters Patent covering the invention; such option to be exercised by a written notification to us within such eight months identifying the specific foreign countries in which the Government will file or cause to be filed an application for patent or other form of protection on the invention; and that the rights in the foreign countries not exercised under the option are left to us subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on the invention in any foreign country, including the power to issue sub-licenses for use on behalf of the Government and/or in furtherance of the foreign policies of the Government.

We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, we have set our hands and affixed our seals.

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Date

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Kevin A. Boulais Seal

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Date

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Walter D. Sessions Seal

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Date

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Francisco Santiago Seal

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Date

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Pearl Rayms-Keller Seal

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Date

\_\_\_\_\_  
Lucas R. Hale Seal

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Date

\_\_\_\_\_  
Craig A. Calcagno Seal

**PATENT****RECORDED: 06/22/2015****REEL: 036010 FRAME: 0611**