PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT | |
|-----------------------|----------------|--|
| NATURE OF CONVEYANCE: | ASSIGNMENT | |
| SEQUENCE: | 2 | |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| AARON BOYD COLE | 01/28/2020 |
| JOSHUA BORNEMAN | 01/28/2020 |

RECEIVING PARTY DATA

| Name: | THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY OF THE NAVY | |
|-------------------|---------------------------------------------------------------------------|--|
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| City: | ARLINGTON | |
| State/Country: | VIRGINIA | |
| Postal Code: | 22203-1995 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15916475 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | 200438 |
|-------------------------|---------------|
| NAME OF SUBMITTER: | EDEN TUTTLE |
| SIGNATURE: | /Eden Tuttle/ |
| DATE SIGNED: | 01/29/2020 |

Total Attachments: 2

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PATENT REEL: 051654 FRAME: 0344 $source = 200438_Assignment_Borneman_signed \# page 1.tif$

PATENT REEL: 051654 FRAME: 0345

ASSIGNMENT OF INVENTION

WHEREAS I, <u>Aaron Boyd Cole</u>, of <u>1155 E Benson Court</u>, <u>Bloomington</u>, <u>Indiana</u>, <u>47401</u>, while engaged as an employee of the Government of the United States of America, hereinafter referred to as the Government, have employed employees, contractors or subcontractors who have invented or contributed to an invention of certain new and useful improvements in a "SYSTEMS AND RELATED METHODS EMPLOYING DIRECTED ENERGY AND MACHINE LEARNING OPERABLE FOR ENABLING OR PROTECTING FROM NON-DESTRUCTIVE DEGRADATION OR DISRUPTION OF ELECTRO-OPTIC(S) OR SENSORS," described in application for Letters Patent of the United States of America executed by the various inventors on the dates referenced below, and

Patent Application 15/916,475 filed on March 9, 2018

WHEREAS, the conditions under which the invention was made are such as to entitle the Government 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 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.

I 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 after filing of the invention in the United States 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 in 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 in behalf of the Government and/or in furtherance of the foreign policies of the Government.

I 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 or obtaining patent(s) as may be requested, provided that any expense arising through such efforts will be paid by the Government.

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

| _/Aaron Boyd Cole/ | January 28 th , 2020 |
|------------------------------|---------------------------------|
| Inventor Signature | Date |
| Aaron Boyd Cole Printed Name | - |

Navy Case: 200438

ASSIGNMENT OF INVENTION

WHEREAS I, Joshua Borneman, of 1330 E Allendale Dr, Bloomington, IN 47401, while engaged as an employee of the Government of the United States of America, hereinafter referred to as the Government, have employed employees, contractors or subcontractors who have invented or contributed to an invention of certain new and useful improvements in a "SYSTEMS AND RELATED METHODS EMPLOYING DIRECTED ENERGY AND MACHINE LEARNING OPERABLE FOR ENABLING OR PROTECTING FROM NON-DESTRUCTIVE DEGRADATION OR DISRUPTION OF ELECTRO-OPTIC(S) OR SENSORS," described in application for Letters Patent of the United States of America executed by the various inventors on the dates referenced below, and

Patent Application 15/916,475 filed on March 9, 2018

WHEREAS, the conditions under which the invention was made are such as to entitle the Government 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 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.

I 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 after filing of the invention in the United States 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 in 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 in behalf of the Government and/or in furtherance of the foreign policies of the Government.

I 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 or obtaining patent(s) as may be requested, provided that any expense arising through such efforts will be paid by the Government.

RECORDED: 01/29/2020

PATENT REEL: 051654 FRAME: 0347

Navy Case: 200438