### 505778881 11/18/2019

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5825708

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MICHAEL MCCLEARN	07/24/2018
RILEY HUFF	07/31/2018
JOHN HOKE	08/27/2018

### **RECEIVING PARTY DATA**

Name:	GOVERNMENT OF THE UNITED STATES, AS REPRESENTED BY THE SECRETARY OF THE AIR FORCE
Street Address:	2240 B STREET
City:	WRIGHT-PATTERSON AFB
State/Country:	OHIO
Postal Code:	45433-7109

### **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	16686702	

### **CORRESPONDENCE DATA**

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 937-904-5077

**Email:** afmclo.jaz.1@us.af.mil

Correspondent Name: DEPARTMENT OF THE AIR FORCE AFMCLO/JAZ

Address Line 1: 2240 B STREET Address Line 2: BUILDING 11

Address Line 4: WRIGHT-PATTERSON AFB, OHIO 45433-7109

ATTORNEY DOCKET NUMBER:	AFD 1848A
NAME OF SUBMITTER:	MATTHEW FAIR
SIGNATURE:	/MATTHEW FAIR/
DATE SIGNED:	11/18/2019

**Total Attachments: 6** 

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PATENT 505778881 REEL: 051037 FRAME: 0716

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## ASSIGNMENT (Government Inventor)

WHEREAS, I, MICHAEL J. MCCLEARN, while employed by the Government of the United States, made or contributed to an invention described in invention disclosure AFD 1848A entitled "ROTATING DETONATION COMBUSTOR AND SYSTEM," to be filed as an application for Letters Patent of the United States (Application Serial Number 16686702 filed 11/18/19), and I hereby authorize and request Air Force Patent Counsel to insert here in the above parentheses (Application Serial Number, filed) the filing date and application number of said application when known;

WHEREAS, The above-identified application for Letters Patent was made or authorized to be made by me; WHEREAS, I believe that I am an original joint inventor of a claimed invention in the application;

WHEREAS, I hereby acknowledge that any willful false statement made in this Declaration/Assignment is punishable under 18 U.S.C. § 1001 by fine, imprisonment of not more than five (5) years, or both; and

WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the United States as represented by the Secretary of the Air Force, under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest therein, including foreign rights.

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, I, MICHAEL J. MCCLEARN:

HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all priority resulting from the filing of the aforesaid application for patent in the United States;

HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title, and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions, and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by me had this Assignment not been made;

HEREBY ALSO GRANT to the Government of the United States, as represented by the Secretary of the Air Force, the option to take the entire right, title, and interest in the invention or all applications for Letters Patent thereon in all countries or jurisdictions foreign to the United States in which the Government of the United States may file, or cause to be filed, applications for Letters Patent, without payment to me of any further consideration; provided, however, that this grant of an option to take foreign rights in the invention must be exercised by written notice to me within eight months of the first filing date of any application for United States Letters Patent covering the invention or within eight months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the option are left to me, subject to a nonexclusive, irrevocable, royalty-free license to the Government of the United States in any patent which may issue on said invention in any country or jurisdiction foreign to the United States, including the power to issue sublicenses for use on behalf of the Government of the United States and/or in furtherance of the foreign policies of the United States of America; and

HEREBY AGREE to execute any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood that I shall not be subject to any out-of-pocket expense relative to such action.

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				Notary Public LYNNITA C. DAVI	

My committee to the Nov. 3, 2018

REEL: 051037 FRAME: 0718

# ASSIGNMENT (Government Inventor)

WHEREAS, I, RILEY HUFF, while employed by the Government of the United States, made or contributed to an invention described in invention disclosure AFD 1848A entitled "ROTATING DETONATION COMBUSTOR AND SYSTEM," to be filed as an application for Letters Patent of the United States (Application Serial Number 16686702 filed 11/18/19), and I hereby authorize and request Air Force Patent Counsel to insert here in the above parentheses (Application Serial Number, filed) the filing date and application number of said application when known;

WHEREAS, The above-identified application for Letters Patent was made or authorized to be made by me; WHEREAS, I believe that I am an original joint inventor of a claimed invention in the application;

WHEREAS, I hereby acknowledge that any willful false statement made in this Declaration/Assignment is punishable under 18 U.S.C. § 1001 by fine, imprisonment of not more than five (5) years, or both; and

WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the United States as represented by the Secretary of the Air Force, under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest therein, including foreign rights.

**NOW, THEREFORE**, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, **I, RILEY HUFF**:

HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all priority resulting from the filing of the aforesaid application for patent in the United States;

HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title, and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions, and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by me had this Assignment not been made;

HEREBY ALSO GRANT to the Government of the United States, as represented by the Secretary of the Air Force, the option to take the entire right, title, and interest in the invention or all applications for Letters Patent thereon in all countries or jurisdictions foreign to the United States in which the Government of the United States may file, or cause to be filed, applications for Letters Patent, without payment to me of any further consideration; provided, however, that this grant of an option to take foreign rights in the invention must be exercised by written notice to me within eight months of the first filing date of any application for United States Letters Patent covering the invention or within eight months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the option are left to me, subject to a nonexclusive, irrevocable, royalty-free license to the Government of the United States in any patent which may issue on said invention in any country or jurisdiction foreign to the United States, including the power to issue sublicenses for use on behalf of the Government of the United States and/or in furtherance of the foreign policies of the United States of America; and

HEREBY AGREE to execute any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood that I shall not be subject to any out-of-pocket expense relative to such action.

		RILEY HLIFF	
SUBSCRIBED AND ACKNOWLEDGED before me by RILEY HUFF th	nis_ <u>3ls-t</u>	day of	
2018, at the city of Wright-Patterson AFB in	n the County of	Montanmed	_and State
of <u>Ohio</u> .		in the second second	
		(mulli Uliva)	
	and a second	Notary Public	· · · · · · · · · · · · · · · · · · ·
		TYNNITTA C. DAVIS	

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# ASSIGNMENT (Contractor Inventor)

WHEREAS, I, JOHN L. HOKE, while employed by Innovative Scientific solutions Inc. ("Contractor"), jointly made or contributed to an invention under contract/subcontract number FA8650-13-D-2343 and FA8650-17-F-2009, as described in invention disclosure AFD 1848A entitled "ROTATING DETONATION COMBUSTOR AND SYSTEM," to be filed as an application for Letters Patent of the United States (Application Serial Number 16686702, filed 11/18/19), and I hereby authorize and request Air Force Patent Counsel to insert here in the above parentheses (Application Serial Number, filed) the filing date and application number of said application when known; and

WHEREAS, Contractor and/or I, JOHN L. HOKE, has indicated its intention to NOT elect title and NOT file an application for Letters Patent on the aforesaid invention;

NOW, THEREFORE, to all whom it may concern, be it known that in recognition of my obligation to the Government of the United States under the above contract and by agreement, or in consideration of the premises and other valuable consideration, I, JOHN L. HOKE, elect herein to:

HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all patent applications claiming priority resulting from the filing of the aforesaid application for patent in the United States in any jurisdiction throughout the world, subject to the reservation of any license to which Contractor and/or I, JOHN L. HOKE, may be entitled under the above contract;

HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by me had this Assignment not been made; and

HEREBY AGREE to execute, and assist with executing, any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood that Contractor and/or I, JOHN L. HOKE, shall not be subject to any out-of-pocket expense relative to such action.

Contractor joins in and agrees to this assignment and, except for the reservation of any license under the above contract, relinquishes and assigns to the Government of the United States, as represented by the Secretary of the Air Force its entire right, title, and interest throughout the world in and to such inventions, and further agrees to furnish to the Government of the United States, upon request, any available information and documents necessary for the timely preparation, filing, and prosecution of such applications, for Letters Patent.

SUBSCRIBED AND ACKNOWLEDGED before me by John L. Hoke this 27th day of August

2018, at the city of Day for in the County of Montgons My and State

of Notary Public

### **CONTRACTOR CERTIFICATION**

I certify that I am an Officer or Agent of Contractor herein, and that JOHN L. HOKE, who signed this assignment on behalf of Contractor, was an employee of said Contractor at the time of invention and was authorized to sign this assignment on his/her own behalf. Contractor, further, herein assigns its rights as the employer of JOHN L. HOKE to the Government of the United States as represented by the Secretary of the Air Force, consistent with our rights and obligations under contract and statute, subject to the reservation to Contractor of any license to which Contractor may be entitled under the above contract or statute. This assignment is duly signed below by Contractor's Officer or Agent for and on behalf of said Contractor by authority of its governing body, and is within the scope of the Officer's or Agent's corporate powers.

FOR CONTRACTOR	Contractor:	Innovative Scientific solutions Inc.
	Ву:	James Tohas (Signature of officer or agent)
,	Date: _	8/27/2018
	Printed Name:	Jamie Fisher
·	Title:	HR Manager
	Business Address:	7610 Metwen Rd Dayton, of 45459 937-430-3012 X100
	Business Phone:	937-430-3012 X/O)

# ASSIGNMENT (Contractor Inventor)

WHEREAS, I, MATTHEW L. FOTIA, while employed by Innovative Scientific solutions Inc. ("Contractor"), jointly made or contributed to an invention under contract/subcontract number FA8650-13-D-2343 and FA8650-17-F-2009, as described in invention disclosure AFD 1848A entitled "ROTATING DETONATION COMBUSTOR AND SYSTEM TURBINE," to be filed as an application for Letters Patent of the United States (Application Serial Number 16686702 filed 11/18/19), and I hereby authorize and request Air Force Patent Counsel to insert here in the above parentheses (Application Serial Number, filed) the filing date and application number of said application when known; and

WHEREAS, Contractor and/or I, MATTHEW L. FOTIA, has indicated its intention to NOT elect title and NOT file an application for Letters Patent on the aforesaid invention;

NOW, THEREFORE, to all whom it may concern, be it known that in recognition of my obligation to the Government of the United States under the above contract and by agreement, or in consideration of the premises and other valuable consideration, I, MATTHEW L. FOTIA, elect herein to:

HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all patent applications claiming priority resulting from the filing of the aforesaid application for patent in the United States in any jurisdiction throughout the world, subject to the reservation of any license to which Contractor and/or I, MATTHEW L. FOTIA, may be entitled under the above contract;

HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by me had this Assignment not been made; and

HEREBY AGREE to execute, and assist with executing, any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood that Contractor and/or I, MATTHEW L. FOTIA, shall not be subject to any out-of-pocket expense relative to such action.

Contractor joins in and agrees to this assignment and, except for the reservation of any license under the above contract, relinquishes and assigns to the Government of the United States, as represented by the Secretary of the Air Force its entire right, title, and interest throughout the world in and to such inventions, and further agrees to furnish to the Government of the United States, upon request, any available information and documents necessary for the timely preparation, filling, and prosecution of such applications, for Letters Patent.

•		Mathan
		MATTHEW L. FOTIA
SUBŞCRIBED AND ACKNOWI	EDGED before me by MATTHEW L. FOR	TA this 27th day of
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Monthomens	and State of Dhio	1140,
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	AME AME	Notary Public

### **CONTRACTOR CERTIFICATION**

I certify that I am an Officer or Agent of Contractor herein, and that MATTHEW L. FOTIA, who signed this assignment on behalf of Contractor, was an employee of said Contractor at the time of invention and was authorized to sign this assignment on his/her own behalf. Contractor, further, herein assigns its rights as the employer of MATTHEW L. FOTIA to the Government of the United States as represented by the Secretary of the Air Force, consistent with our rights and obligations under contract and statute, subject to the reservation to Contractor of any license to which Contractor may be entitled under the above contract or statute. This assignment is duly signed below by Contractor's Officer or Agent for and on behalf of said Contractor by authority of its governing body, and is within the scope of the Officer's or Agent's corporate powers.

FOR CONTRACTOR	Contractor:	Innovative Scientific solutions Inc.
	Ву:	- June 1 Au
	Date:	(Signature of officer or agent)
	Printed Name:	
	Title:	HR Manager
	Business Address:	Theo Mc Ewen Rd Dayton, DH 45459
	Business Phone:	

PATENT REEL: 051037 FRAME: 0723

**RECORDED: 11/18/2019**