## 504488228 08/03/2017

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4534930

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MARK R. JOLLY	07/31/2017
RUSSELL ALTIERI	07/31/2017
ASKARI BADRE-ALAM	08/03/2017
DOUGLAS E. IVERS	02/10/2017
DOUG A. SWANSON	07/31/2017
DANIEL MELLINGER	07/25/2017
ANDREW D. MEYERS	03/01/2017

### **RECEIVING PARTY DATA**

Name:	LORD CORPORATION
Street Address:	111 LORD DRIVE
City:	CARY
State/Country:	NORTH CAROLINA
Postal Code:	27511

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

Property Type	Number
Application Number:	14728688

## **CORRESPONDENCE DATA**

504488228

**Fax Number:** (919)469-5226

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:** 9193422054

Email: lakeisha\_preddie@lord.com
Correspondent Name: ATTN: IP LEGAL DEPT.

Address Line 1: 111 LORD DRIVE

Address Line 4: CARY, NORTH CAROLINA 27511

ATTORNEY DOCKET NUMBER:	IR-3681
NAME OF SUBMITTER:	RICHARD G. MILLER
SIGNATURE:	/Richard G. Miller, Reg. No. 59,447/
DATE SIGNED:	08/03/2017

PATENT REEL: 043441 FRAME: 0413 This document serves as an Oath/Declaration (37 CFR 1.63).

#### **Total Attachments: 23**

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PATENT REEL: 043441 FRAME: 0414

Atty. Docket No. 1R-3681

DECLARATION AND ASSIGNMENT FOR PATENT APPLICATIONS

WHEREAS, Mark R. Jolly, Russell E. Altieri, Askari Badre-Alam, Douglas E. Ivers,

Doug A. Swanson, Daniel Mellinger and Andrew D. Meyers, hereinafter referred to as

"ASSIGNORS", have invented and are the owners of an invention entitled "HELICOPTER

VIBRATION CONTROL SYSTEM AND CIRCULAR FORCE GENERATION SYSTEMS

FOR CANCELING VIBRATIONS," said invention being fully set forth and described in the

United States Application Number or PCT International Application Number 14/728,688, filed on

January 2, 2015, which has been prepared in connection with said invention;

WHEREAS, LORD CORPORATION, a corporation organized and existing under and by

virtue of the laws of the Commonwealth of Pennsylvania, and engaged in business at 111 Lord

Drive, Cary, North Carolina 27511, hereinafter referred to as ASSIGNEE, is desirous of acquiring

said invention and any and all applications for Letters Patent and any and all Letters Patent of the

United States and foreign countries which may be issued therefor;

NOW THEREFORE, be it known that for valuable consideration, we have sold and by

these presents do hereby sell, assign, transfer and convey unto said assignce, its successors and

assigns, the entire right, title and interest in and to said invention and application, and in and to

any and all provisional applications, non-provisional applications, continuations, continuations-in-

part, or divisions thereof, and in and to all Letters Patent of the United States and all foreign

countries or reissues and reexaminations thereof which may be granted thereof or thereon, for the

full end of the term for which said Letters Patent may be granted, together with the right to claim

the priority of said application in all foreign countries in accordance with the International

Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully

and entirely as the same would have been held and enjoyed by us if this assignment and sale had

not been made.

We hereby covenant and agree that, at the same time of execution and delivery of these

presents, we possess full title to the invention and application above-mentioned, and that we have

the unencumbered right and authority to make this assignment. The above identified application

was made or was authorized to be made by the person executing this oath/declaration. We believe

Page 1 of 5

REEL: 043441 FRAME: 0415

that we are the original inventors or an original joint inventor of a claimed invention in the application. We have reviewed and understand the contents of the above referenced application and we are aware of the duty of disclosure under Rule 1.56. We hereby acknowledge that any willful false statements made in this declaration are punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both."

We further covenant and agree and bind our heirs, legal representatives and assigns, promptly to communicate to said assignee and its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for said invention in all countries and to vest in the assignee complete title to said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

		7/31/2017	<b>}</b>
Mark R. Jolly		Date	***************************************
	Notarial Certific	ate	
State of	* *		
County of Wake.	: \$8. _		
I, Anne Mars LKE	NG, a Notary Pu	blic for WAVES  Jolly personally appeared	County
day and acknowledged the due e	-		i before me uns
Witness my hand and official sea	al, this the <u>Gl</u> day of	JULY 2017	
Anne Marie Kin Notary Public	! J		
My commission expires _27/	towney, 2018	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	

Page 2 of 5

Signatures Continued on Following Page...

Rusell alles 7/31/17
Russell Altieri Daté
Notarial Certificate
State of NC: ss.
County of NAKE
I, Howe Mare Loud, a Notary Public for Make County, do hereby certify that Russell Altieri personally appeared before me this day and acknowledged the due execution of the foregoing instrument.
Witness my hand and official seal, this the 31 day of July 2017.
Notary Public Ling
My commission expires 27 FEBRUARY 2018
Askaří Badre-Alam Date
Notarial Certificate
State of NC.: ss. County of Wake::
1 1 1
I, And Income a Notary Public for Make County, do hereby certify that Askari Badre-Alam personally appeared before methis day and acknowledged the due execution of the foregoing instrument.
Witness my hand and official seal, this the 3 day of August 2017.
Anne Marie Kny Nobery Public Marie Kny
My commission expires JF Fernuary 2018 County

 $Signatures\ Continued\ on\ Following\ Page\dots$ 

Douglas E. Ivers	Date
	Notarial Certificate
State of	
County of	) SS.
I,, do herelday and acknowledged the due	, a Notary Public for County, by certify that <b>Douglas E. Ivers</b> personally appeared before me this execution of the foregoing instrument.
Witness my hand and official:	seal, this the day of, 2017.
Notary Public	
My commission expires	
Doug A. Swanson	July 31, 2017 Date
	Notarial Certificate
State of NC  County of WAKE	- ; ss.
I, HUNE ARTE do here this day and acknowledged the	county, a Notary Public for <u>AKE</u> County, by certify that <b>Doug A. Swanson personally</b> appeared before me due execution of the foregoing instrument.
Witness my hand and official	seal, this the 31 day of July , 2017.
Anne Marie X Notary Public Carie	
My commission expires <u>27</u>	
Signatures Continued on Follow	ing Page

Daniel Mellinger	Date	
	Notarial Certificate	
State of	<b>;</b>	
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I,, do hereby c	a Notary Public for ertify that <b>Daniel Mellinger</b> personally	County, appeared before me this
day and acknowledged the due ex-	ecution of the foregoing instrument.	
Witness my hand and official seal	this the day of	, 2017.
Notary Public		
My commission expires	```	
Andrew D. Meyers	Date	
	Notarial Certificate	
State of	X	
	SS.	
County of	ë	
Ĭ.	, a Notary Public for	County,
, do hereby	, a Notary Public for	ally appeared before me
this day and acknowledged the du	e execution of the foregoing instrumen	<b>.</b> ,
Witness my hand and official seal	, this the day of	, 2017.
Notary Public	· .	
My commission expires	A single construction of the construction of t	

Atty. Docket No. IR-3681

DECLARATION AND ASSIGNMENT FOR PATENT APPLICATIONS

WHEREAS, Mark R. Jolly, Russell E. Altieri, Askari Badre-Alam, Douglas E. Ivers,

Doug A. Swanson, Daniel Mellinger and Andrew D. Meyers, hereinafter referred to as

"ASSIGNORS", have invented and are the owners of an invention entitled "HELICOPTER

VIBRATION CONTROL SYSTEM AND CIRCULAR FORCE GENERATION SYSTEMS

FOR CANCELING VIBRATIONS," said invention being fully set forth and described in the

United States Application Number or PCT International Application Number 14/728,688, filed on

January 2, 2015, which has been prepared in connection with said invention;

WHEREAS, LORD CORPORATION, a corporation organized and existing under and by

virtue of the laws of the Commonwealth of Pennsylvania, and engaged in business at 111 Lord

Drive, Cary, North Carolina 27511, hereinafter referred to as ASSIGNEE, is desirous of acquiring

said invention and any and all applications for Letters Patent and any and all Letters Patent of the

United States and foreign countries which may be issued therefor,

NOW THEREFORE, be it known that for valuable consideration, we have sold and by

these presents do hereby sell, assign, transfer and convey unto said assignee, its successors and

assigns, the entire right, title and interest in and to said invention and application, and in and to

any and all provisional applications, non-provisional applications, continuations, continuations-in-

part, or divisions thereof, and in and to all Letters Patent of the United States and all foreign

countries or reissues and reexaminations thereof which may be granted thereof or thereon, for the

full end of the term for which said Letters Patent may be granted, together with the right to claim

the priority of said application in all foreign countries in accordance with the International

Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully

and entirely as the same would have been held and enjoyed by us if this assignment and sale had

not been made.

We hereby covenant and agree that, at the same time of execution and delivery of these

presents, we possess full title to the invention and application above-mentioned, and that we have

the unencumbered right and authority to make this assignment. The above identified application

was made or was authorized to be made by the person executing this oath/declaration. We believe

Page 1 of 5

REEL: 043441 FRAME: 0420

that we are the original inventors or an original joint inventor of a claimed invention in the application. We have reviewed and understand the contents of the above referenced application and we are aware of the duty of disclosure under Rule 1.56. We hereby acknowledge that any willful false statements made in this declaration are punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both."

We further covenant and agree and bind our heirs, legal representatives and assigns, promptly to communicate to said assignee and its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for said invention in all countries and to vest in the assignee complete title to said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

Mark R. Jolly	··············		ī	Date		
	Nota	arial Cer	tificate			
State of	<u></u>					
County of		SS.				
I, do h	, a ereby certify th	Notary	Public R Jally	for	v anneared he	County,
day and acknowledged the					y approaced or	ore me ams
Witness my hand and offici	al seal, this the	day	of		, 2017.	
Notary Public		<del></del> ,				
My commission expires		¥.				

Signatures Continued on Following Page ...

Page 2 of 5

Russell Altieri	Date	
	Notarial Certificate	
State of		
County of	:	:
I,	, a Notary Public for	County,
	certify that Russell Altieri personally appeared befacution of the foregoing instrument.	ore me this
Witness my hand and official sea	l, this the day of, 2017.	
Notary Public		
My commission expires		
Askari Badre-Alam	Date	
	Notarial Certificate	
State of	<b>₽</b>	
County of	i	
I,, do hereby	, a Notary Public for certify that <b>Askari Badre-Alam</b> personally appeared	County,
this day and acknowledged the du	ne execution of the foregoing instrument.	
Witness my hand and official seal	l, this the day of, 2017.	
Notary Public	<del></del>	
My commission expires		

Signatures Continued on Following Page...

Page 3 of 5

Longle & Ira	2/10/17 Date
Douglas E. Ivers	Date
	Notarial Certificate
State of North Charling	; ; ss,
County of WAKE	<u></u>
day and acknowledged the due e	, a Notary Public for Line Count certify that <b>Douglas E. Ivers</b> personally appeared before me the execution of the foregoing instrument.
Witness my hand and official sea	al, this the 10 day of FEBURAY, 2017.
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	Distriction Sounds
My commission expires	WA COMMISSION EXTINGS Generation control
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My commission expires	Date  Notarial Certificate  Ss.  a Notary Public for County certify that Doug A. Swanson personally appeared before rule execution of the foregoing instrument.
My commission expires	Date  Notarial Certificate  ss.  a Notary Public for Count certify that Doug A. Swanson personally appeared before rule execution of the foregoing instrument.  al, this the day of, 2017.

Page 4 of 5

Daniel Mellinger	Date	instance
	Notarial Certificate	
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County of	Ç. SS√	
I,, do hereb day and acknowledged the due	, a Notary Public for by certify that <b>Daniel Mellinger</b> personally appeared befor execution of the foregoing instrument.	County, e me this
Witness my hand and official s	seal, this theday of, 2017.	
Notary Public		
My commission expires	·	
Andrew D. Meyers	Date	<del></del> ;
	Notarial Certificate	
State of		
County of	\$85	
I,, do herel	, a Notary Public for	County, efore me
this day and acknowledged the	due execution of the foregoing instrument.	
Witness my hand and official s	seal, this the day of, 2017.	
Notary Public		
My commission expires	·	

Atty, Docket No. IR-3681

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virtue of the laws of the Commonwealth of Pennsylvania, and engaged in business at 111 Lord

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acquiring said invention and any and all applications for Letters Patent and any and all Letters

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NOW THEREFORE, be it known that for valuable consideration, we have sold and by

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presents, we possess full title to the invention and application above-mentioned, and that we have

the unencumbered right and authority to make this assignment. The above identified application

was made or was authorized to be made by the person executing this oath/declaration. We

Page 1 of 8

PATENT

REEL: 043441 FRAME: 0425

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IN WITNESS WHEREOF, I have hereunto set my hand and scal.

Mark R. Jolly			Ī	Date	
	Not	arial Cer	tificate		
State of	\$ 5				
County of	*	SS.			
I,, do l	, a	Notary	Public	for	County,
day and acknowledged the	ereby certify the due execution of	nat <b>Mark</b> of the for	. <b>K. Jolly</b> egoing in:	personau strument.	y appeared before the uns
Witness my hand and offic	ial seal, this the	day	/ of	***************************************	,2017.
Notary Public		izzanie			
My commission expires					
	Signatures Cor	itinued on	Following	g Page	

Page 2 of 8

Russell Altieri	Date	
	Notarial Certificate	
State of		
County of	: SS. 	
I,, do here	a Notary Public foreby certify that <b>Russell Altieri</b> personally appeared before	County, me this
day and acknowledged the du	e execution of the foregoing instrument.	
Witness my hand and official	seal, this theday of, 2017.	
Notary Public		
My commission expires		
Askari Badre-Alam	Date	
	Notarial Certificate	
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County of	\$ \$8.	
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Ι,	a Notary Public foreby certify that <b>Askari Badre-Alam</b> personally appeared by	County,
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-	I seal, this the day of, 2017.	
Notary Public		
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Page 3 of 8

Signatures Continued on Following Page...

ouglas E. Ivers	Date
a.v. <b>v.</b>	Notarial Certificate
tate of	\$ \$ \$8. \$
, do hereby of his day and acknowledged the due	a Notary Public for County, rertify that <b>Douglas E. Ivers</b> personally appeared before me execution of the foregoing instrument.
Witness my hand and official seal,	this the day of, 2017.
Notary Public	
My commission expires	
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Doug A. Swanson	Date
	Notarial Certificate
State of	\$ : 88.
County of	
I,, do hereby	a Notary Public for County certify that <b>Doug A. Swanson</b> personally appeared before many execution of the foregoing instrument.
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	al, this the day of, 2017.

Page 5 of 8

Signatures Continued on Following Page...

Atty. Docket No. IR-3681

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	Sooor	And P			<u>.</u>	 *********

WITNESS 1

WITNESS 2

Trais	Van	School	· ·
Sign Travis	•		

Printed Name

Dated:	7-25-	17
LEGICU.		

Sign Matthew Turpin

Printed Name

Dated: 7-75-7017

Andrew D. Meyers		Date
	Notarial Certifica	ate
State of	SS.	
I,, do hereby this day and acknowledged the du	certily that Andrew D	olic for County,  Myers personally appeared before me going instrument.
Witness my hand and official sea	l, this the day of _	,2017.
Notary Public		

Atty. Docket No. IR-3681

DECLARATION AND ASSIGNMENT FOR PATENT APPLICATIONS

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IN WITNESS WHEREOF, I have hereunto set my hand and scal.

Mark R. Jolly			Ē	Date		*
	Notari	al Cer	ificate			
State of	š 3 3. 8.	SS.				
I,, do hereby c day and acknowledged the due exe	ertify that	Mark	R. Jolly	personally	appeared befo	County, re me this
Witness my hand and official seal,	this the	day	of		, 2017.	
Notary Public	·	<del></del> .				
My commission expires		?				

Page 2 of 5

Signatures Continued on Following Page ...

Russell Altieri	Date
	Notarial Certificate
State of	* *
County of	e Programme de la companya della companya della companya de la companya della com
Í,	, a Notary Public for County,
, do hereby co	_, a Notary Public for County, ertify that Russell Altieri personally appeared before me this
day and acknowledged the due exec	cution of the foregoing instrument.
Witness my hand and official seal,	this the, 2017.
Notary Public	
Mar garanalanian amairas	
My commission expires	
Askari Badre-Alam	Date
	Notarial Certificate
State of	š
	SS.
County of	• •
Ι,	, a Notary Public for County, rtify that Askari Badre-Alam personally appeared before me
, do hereby ce	rtify that Askari Badre-Alam personally appeared before me
this day and acknowledged the due	execution of the foregoing instrument.
Witness my hand and official seal,	this the, 2017.
*	
Notary Public	•
My commission expires	
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Signatures Continued on Following Page...

Page 3 of 5

PATENT REEL: 043441 FRAME: 0435

Douglas E. Ivers	Date	c.
	Notarial Certificate	
State of	\$. 2	
County of	; §s. ≱	
I,, do hereby of day and acknowledged the due ex	, a Notary Public for Coertify that <b>Douglas E. Ivers</b> personally appeared before neceution of the foregoing instrument.	ounty, ne this
Witness my hand and official seal	l, this the, 2017.	
Notary Public		
My commission expires		
Doug A. Swanson	Date	<del>-i</del>
	Notarial Certificate	
State of	<b>\$</b>	
County of	\$ \$8.	
I,, do hereby this day and acknowledged the du	, a Notary Public for Coertify that <b>Doug A. Swanson</b> personally appeared before execution of the foregoing instrument.	County, ore me
Witness my hand and official sea	l, this theday of, 2017.	
Notary Public		
My commission expires		
Signatures Continued on Following	Page	

Page 4 of 5

Daniel Mellinger	Date
Notarial Certificate	
State of	
County of ; ss.	
1,, a Notary Public for County,, do hereby certify that <b>Daniel Mellinger</b> personally appeared before me this day and acknowledged the due execution of the foregoing instrument.	
Witness my hand and official seal, this the day o	f, 2017.
Notary Public	
My commission expires	
Andrew D. Meyers	<u> </u>
Notarial Certificate	
State of North Conduic : ss.  County of Wale :	
I, Lakesha R. Reddie . a Notary this day and acknowledged the due execution of the fo	D. Myers personally appeared before me
Witness my hand and official seal, this the is day of Macch, 2017.	
Hold: Notary Public  My commission expires 4 30, 2018	COUNT INTO

Page 5 of 5